

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: November 25, 2003, 06:21:51 ; Search time 10 Seconds
(without alignments)
3.865 Million cell updates/sec

Title: us-09-965-825-1

Perfect score: 2160

Sequence: 1 ttagagggcgatctctgtgag.....ggtgcccatgagattgacct 2160

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 0.5

Searched: 12 segs, 8947 residues

Total number of hits satisfying chosen parameters: 24

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Database : US09965825.seq:*

Prod. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES			
Result No.	Score	Query Match Length DB ID	Description
1	2160	100.0 2160 1	US-09-965-825-1 Sequence 1, Appl1
2	2160	100.0 3248 1	US-09-965-825-4 Sequence 1, Appl1
3	875	40.5 875 1	US-09-965-825-3 Sequence 3, Appl1
4	324.4	15.0 1422 1	US-09-965-825-12 Sequence 12, Appl1
5	46.8	2.2 1422 1	US-09-965-825-12 Sequence 12, Appl1
6	46.8	2.2 2160 1	US-09-965-825-1 Sequence 1, Appl1
7	46.8	2.2 3248 1	US-09-965-825-4 Sequence 4, Appl1
8	26	1.2 26 1	US-09-965-825-10 Sequence 10, Appl1
9	25.2	1.2 48 1	US-09-965-825-9 Sequence 9, Appl1
10	20.4	0.9 875 1	US-09-965-825-3 Sequence 3, Appl1
11	20	0.9 20 1	US-09-965-825-13 Sequence 13, Appl1
12	20	0.9 20 1	US-09-965-825-14 Sequence 14, Appl1
13	18.4	0.9 613 1	US-09-965-825-7 Sequence 7, Appl1
14	15.8	0.7 475 1	US-09-965-825-6 Sequence 6, Appl1
15	15.4	0.7 613 1	US-09-965-825-7 Sequence 7, Appl1
16	15.4	0.7 475 1	US-09-965-825-6 Sequence 6, Appl1
17	12.2	0.6 20 1	US-09-965-825-11 Sequence 11, Appl1
18	12.2	0.6 20 1	US-09-965-825-14 Sequence 14, Appl1
19	12	0.6 48 1	US-09-965-825-9 Sequence 9, Appl1
20	11	0.5 20 1	US-09-965-825-8 Sequence 8, Appl1
21	9.4	0.4 20 1	US-09-965-825-8 Sequence 8, Appl1
22	8.8	0.4 20 1	US-09-965-825-11 Sequence 11, Appl1
23	8.8	0.4 20 1	US-09-965-825-13 Sequence 13, Appl1
24	8.6	0.4 26 1	US-09-965-825-10 Sequence 10, Appl1

ALIGNMENTS

RESULT 1
US-09-965-825-1
; Sequence 1, Application US/09965825
; GENERAL INFORMATION:

APPLICANT: DUSCH, Nicole	
APPLICANT: THOMAS, Hermann	
APPLICANT: THIERBACH, Georg	
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID	
FILE REFERENCE: 21345USOX	
CURRENT APPLICATION NUMBER: US/09/965, 825	
CURRENT FILING DATE: 2001-10-01	
PRIOR APPLICATION NUMBER: DE 10048604.5	
PRIOR FILING DATE: 2000-09-30	
PRIOR APPLICATION NUMBER: DE 10117085.8	
PRIOR FILING DATE: 2001-04-06	
NUMBER OF SEQ ID NOS: 14	
SOFTWARE: PatentIn version 3.1	
SEQ ID NO 1	
LENGTH: 2160	
TYPE: DNA	
ORGANISM: Corynebacterium glutamicum	
FEATURE:	
NAME/KEY: CDS	
LOCATION: (327)..(2063)	
OTHER INFORMATION:	
NAME/KEY: -35 signal	
LOCATION: (227)..(232)	
OTHER INFORMATION:	
NAME/KEY: -10 signal	
LOCATION: (256)..(261)	
OTHER INFORMATION:	
US-09-965-825-1	
Query Match	100.0%; Score 2160; DB 1; Length 2160;
Best Local Similarity	100.0%; Prod. No. 4,7e-219;
Matches 2160; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
QY	1 TTAGAGGCGATCTGTGAGGTGACCTTTTGTGGGCTCGGCTTAATTGGCAGTTT 60
DB	1 TTAGAGGCGATCTGTGAGGTGACCTTTTGTGGGCTCGGCTTAATTGGCAGTTT 60
QY	61 CGAGGCGACAGACAGAGCGGTGCGACAGATGTTTAAATAGCGATCGTGGCATCTGT 120
DB	61 CGAGGCGACAGACAGAGCGGTGCGACAGATGTTTAAATAGCGATCGTGGCATCTGT 120
QY	121 TTGGTTTCAGGCGCTGAAACCAACCACTGCCACGACGACGAGAAATCCAAAGT 180
DB	121 TTGGTTTCAGGCGCTGAAACCAACCACTGCCACGACGAGAAATCCAAAGT 180
QY	181 GGGCATCCCTGTTGGTACCGAGTACCAACCGGGCTGAACTCCCTGGCAGCGGGCG 240
DB	181 GGGCATCCCTGTTGGTACCGAGTACCAACCGGGCTGAACTCCCTGGCAGCGGGCG 240
QY	241 AAGCGTGACAACTGAAATTTAAGAGCACAATTGAAGTCGACCAAGTTAGCAAC 300
DB	241 AAGCGTGACAACTGAAATTTAAGAGCACAATTGAAGTCGACCAAGTTAGCAAC 300
QY	301 AATAGCATTAAGTTGAGAGATTGAGTGCACACAGCTACGCAAGCAATTAATTGACA 360
DB	301 AATAGCATTAAGTTGAGAGATTGAGTGCACACAGCTACGCAAGCAATTAATTGACA 360
QY	361 CTTTGAAGCTAAGGTGAGGCAATTATAGTTGGTGGTGCAGCTTAAATCCGA 420
DB	361 CTTTGAAGCTAAGGTGAGGCAATTATAGTTGGTGGTGCAGCTTAAATCCGA 420
QY	421 TCGTGAGTCTCGCCCAATCAGATTAATGATGGGTGCACGTTCAAAATGAGAGCGG 480
DB	421 TCGTGAGTCTCGCCCAATCAGATTAATGATGGGTGCACGTTCAAAATGAGAGCGG 480
QY	481 CGGCGTTTGACCGCGGTGCGGATGTTGATCTAGGGAGCTGCGAGTATGCTGCTT 540
DB	481 CGGCGTTTGACCGCGGTGCGGATGTTGATCTAGGGAGCTGCGAGTATGCTGCTT 540
QY	541 CTTGAGTCTTGGAACAACACCTGATTACGGGCTTATATGATTCGCAAAATGGTG 600
DB	541 CTTGAGTCTTGGAACAACACCTGATTACGGGCTTATATGATTCGCAAAATGGTG 600

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QY 601 CGAAGTGTGGCCATCGTAGCCATATTCGATGCCCCAGATTGGTTCGACGTTCTTCC 660
Db 601 CGAAGGTGTGGCCATCGTAGCCATATTCGATGCCCCAGATTGGTTCGACGTTCTTCC 660
QY 661 AGGAAACGCATCCGGAGATTTTGTAAAGATCTCTGTTACTCGGAGATGTGAATG 720
Db 661 AGGAAACGCATCCGGAGATTTTGTAAAGATCTCTGTTACTCGGAGATGTGAATG 720
QY 721 GTGGTGGCAAGGGGAAAGCATTTTGCATACCGGATTCACATCCAGCGGGTAAAG 780
Db 721 GTGGTGGCAAGGGGAAAGCATTTTGCATACCGGATTCACATCCAGCGGGTAAAG 780
QY 781 GTGTGTGGTGTGTGTATTCCTGTGTATATCGCTAAGAAAGCAGAGTACCGTACTT 840
Db 781 GTGTGTGGTGTGTGTATTCCTGTGTATATCGCTAAGAAAGCAGAGTACCGTACTT 840
QY 841 ATTCCAAATTCGACTATTTCTTGTGGCACTCTGTGTGTTCGCGAATCTACTAGGCTG 900
Db 841 ATTCCAAATTCGACTATTTCTTGTGGCACTCTGTGTGTTCGCGAATCTACTAGGCTG 900
QY 901 CAGGCGCTGGTGGAGCGCATTTACAAAGCTAAGCTGTCACATTTGTTGCGGGTGGGGCG 960
Db 901 CAGGCGCTGGTGGAGCGCATTTACAAAGCTAAGCTGTCACATTTGTTGCGGGTGGGGCG 960
QY 961 TGAAGAAATGCTCGCGCGCAGGTGTGTGAAGTTGCGGAGAAATTAATCAACCGATCGGCG 1020
Db 961 TGAAGAAATGCTCGCGCGCAGGTGTGTGAAGTTGCGGAGAAATTAATCAACCGATCGGCG 1020
QY 1021 ATGGGCTGGGTGTGTGAAGCATTCACAGCATGAGAAATCCGTTTGAGGTGGGCAATGCTG 1080
Db 1021 ATGGGCTGGGTGTGTGAAGCATTCACAGCATGAGAAATCCGTTTGAGGTGGGCAATGCTG 1080
QY 1081 GCCGTGTTGGTTACGGGCGCCGCTGGATGCGTCCAAATGAGGCGGATCTGCTGATTCAT 1140
Db 1081 GCCGTGTTGGTTACGGGCGCCGCTGGATGCGTCCAAATGAGGCGGATCTGCTGATTCAT 1140
QY 1141 TGGGTACGGAATTCCTTATTTCTGATTTCTTCTTAAAGAACAGTTGCCAGGTGAGTA 1200
Db 1141 TGGGTACGGAATTCCTTATTTCTGATTTCTTCTTAAAGAACAGTTGCCAGGTGAGTA 1200
QY 1201 TCAACGCTGGCCACATTTGTGTCAGTACCAAGGTGAAAGTATCCGTTGACCGGTATGTTG 1260
Db 1201 TCAACGCTGGCCACATTTGTGTCAGTACCAAGGTGAAAGTATCCGTTGACCGGTATGTTG 1260
QY 1261 CTGCAACATCGAAATATTTTGGCTCATGTGAAGAAAAACAGATCGTTCTTCTG 1320
Db 1261 CTGCAACATCGAAATATTTTGGCTCATGTGAAGAAAAACAGATCGTTCTTCTG 1320
QY 1321 ATCGGATGCTCAAGGCAACAGAGCTAAGTTAGCTCGTGTGAGAGACGTACACATA 1380
Db 1321 ATCGGATGCTCAAGGCAACAGAGCTAAGTTAGCTCGTGTGAGAGACGTACACATA 1380
QY 1381 ACGTCGAGAGCATGTGCTTATTCACCTGTAATACGTTGCTTATTTGAACAGAGCTG 1440
Db 1381 ACGTCGAGAGCATGTGCTTATTCACCTGTAATACGTTGCTTATTTGAACAGAGCTG 1440
QY 1441 CGGATTAAGATGCGGTGTATCTGTGTGATACCGGATGTGCAATGTGTGATCGAGGT 1500
Db 1441 CGGATTAAGATGCGGTGTATCTGTGTGATACCGGATGTGCAATGTGTGATCGAGGT 1500
QY 1501 ACATCGAGATCCGGAGGAAACGCGCATTTGTGGGTTCAATCCGCAACGCGCATGAG 1560
Db 1501 ACATCGAGATCCGGAGGAAACGCGCATTTGTGGGTTCAATCCGCAACGCGCATGAG 1560
QY 1561 CTAAATGGTGGCCATGCGCATGTGTGCGCAAGGTGTGATCGAAACGCGCAGGTGATG 1620
Db 1561 CTAAATGGTGGCCATGCGCATGTGTGCGCAAGGTGTGATCGAAACGCGCAGGTGATG 1620
QY 1621 CGATGTGTGCGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1680
Db 1621 CGATGTGTGCGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1680

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QY 1681 ACCAATTCGCTGGAAGCTGTGTGTGTAAACAAGTTCTTTGGGACATGTGAAGTTGG 1740
Db 1681 ACCAATTCGCTGGAAGCTGTGTGTGTAAACAAGTTCTTTGGGACATGTGAAGTTGG 1740
QY 1741 AGATGCTGTGTGAAGGACACCGCAATTTGTGTACTGACCATGAGAAATGTAATTCGAG 1800
Db 1741 AGATGCTGTGTGAAGGACACCGCAATTTGTGTACTGACCATGAGAAATGTAATTCGAG 1800
QY 1801 AGATTTGGGCGGCTGCGGGGTATCAATCGGTAGCATCACCGATCCGAGAAAGTTGCGG 1860
Db 1801 AGATTTGGGCGGCTGCGGGGTATCAATCGGTAGCATCACCGATCCGAGAAAGTTGCGG 1860
QY 1861 AGCAGTAGCTGAAGGCAATTTGCAATATCTGACCTGTACTGATGATATGCTGCAAGATC 1920
Db 1861 AGCAGTAGCTGAAGGCAATTTGCAATATCTGACCTGTACTGATGATATGCTGCAAGATC 1920
QY 1921 CTAAATGCGCTGTGATCTCCACCAACATCACGTGTGGAACAGGTATGAGGATTCGCAAG 1980
Db 1921 CTAAATGCGCTGTGATCTCCACCAACATCACGTGTGGAACAGGTATGAGGATTCGCAAG 1980
QY 1981 CCGCCACCCGACCGTCTTTGTGTGAGAGATGAGGAGCATGATGATCTGCGCCGTTGCA 2040
Db 1981 CCGCCACCCGACCGTCTTTGTGTGAGAGATGAGGAGCATGATGATCTGCGCCGTTGCA 2040
QY 2041 ACATTAAGAAATATTCCTACTCATGATGATGATGATACCTGTGTTCTCATTTGACCGCA 2100
Db 2041 ACATTAAGAAATATTCCTACTCATGATGATGATGATGATACCTGTGTTCTCATTTGACCGCA 2100
QY 2101 GCGCTTAATGCTCCCAACATTTCCAGAGATGAGAGCTCAAGCGGGTCCCATGAGATTCCT 2160
Db 2101 GCGCTTAATGCTCCCAACATTTCCAGAGATGAGAGCTCAAGCGGGTCCCATGAGATTCCT 2160

RESULT 2
US-09-965-825-4
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSCH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965, 825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4

Query Match 100.0%; Score 2160; DB 1; Length 3248;
Best Local Similarity 100.0%; Pred. No. 3, 4e-219;
Matches 2160; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 121 TTGGTTTTCAGAGGCTGAAACCAACGAGACTGCCACGACGAGAAATCCGAAAAGT 180
Db 596 TTGGTTTTCAGAGGCTGAAACCAACGAGACTGCCACGAGAAATCCGAAAAGT 655
QY 181 GGGAGTCCCTGTTGGTACCGAGTACCACCCGGGCTGAAATCCCTGGAGGCGGCG 240
Db 656 GGGAGTCCCTGTTGGTACCGAGTACCACCCGGGCTGAAATCCCTGGAGGCGGCG 715
QY 241 AAGCGTGGCAACAATGGAAATTTAAGACACAAATTTGAATGCGACCAATTTAGGCAAC 300
Db 716 AAGCGTGGCAACAATGGAAATTTAAGACACAAATTTGAATGCGACCAATTTAGGCAAC 775
QY 301 AATAGCCATAACCTTGAAGAGTTGAGATGACACACAGTACGAGAAATTAATTGACA 360
Db 776 AATAGCCATAACCTTGAAGAGTTGAGATGACACACAGTACGAGAAATTAATTGACA 835
QY 361 CTTTGAAGAGTCAAGAGTGAAGCAATTTATGTTGGTGGTACAGCTTATCCGA 420
Db 836 CTTTGAAGAGTCAAGAGTGAAGCAATTTATGTTGGTGGTACAGCTTATCCGA 895
QY 421 TCGTGATGCTGTCCGCCAATCAGATATTGAGTGGTGCACGTTGAAATGAGAAAGCG 480
Db 896 TCGTGATGCTGTCCGCCAATCAGATATTGAGTGGTGCACGTTGAAATGAGAAAGCG 955
QY 481 CGGGGTTTGACGGGTCGGGAAATCGTTGATCACTGGGAGCTGGCAGTATGTCTGCTT 540
Db 956 CGGGGTTTGACGGGTCGGGAAATCGTTGATCACTGGGAGCTGGCAGTATGTCTGCTT 1015
QY 541 CTTTGGTCTCTGAAAACAACACCTGATTCAGGGCTTTTATGATTCGATCGAAATGGTG 600
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QY 601 CGAAGGTGGTGGCCATGCTAGCCATATTCGAGAGTCCAGATTTGTTGAGTCTTCC 660
Db 1076 CGAAGGTGGTGGCCATGCTAGCCATATTCGAGAGTCCAGATTTGTTGAGTCTTCC 1135
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Db 1136 AGGAAACGCAATCCGAGATTTTGTTTAAGAAATGCTCTGTTACTGCGAATGGTGAATG 1195
QY 721 GTGGTGAAGAGGAGAAAGCATTTTGTGATCAGCGATTCAGTCCATGCGGGTAAAG 780
Db 1196 GTGGTGAAGAGGAGAAAGCATTTTGTGATCAGCGATTCAGTCCATGCGGGTAAAG 1255
QY 781 GTGGTGGTGGTGAATGTTCTGAGTATTCGCTAAGAAAGCAGAGTACGATCTT 840
Db 1256 GTGGTGGTGGTGAATGTTCTGAGTATTCGCTAAGAAAGCAGAGTACGATCTT 1315
QY 841 ATTCCAAATTCACATATTTCTTCTGCACTCCGTTGGTGTCCCGATCTTGAAGGCTG 900
Db 1316 ATTCCAAATTCACATATTTCTTCTGCACTCCGTTGGTGTCCCGATCTTGAAGGCTG 1375
QY 901 CAGGCTGGTGGAGGCGATTAACAAGCTAAGTCTGCACTTGTGCGGGTGGGCG 960
Db 1376 CAGGCTGGTGGAGGCGATTAACAAGCTAAGTCTGCACTTGTGCGGGTGGGCG 1435
QY 961 TGAAGAAATGCTCGCGCAGGTTGAGATTTGGAGAGATTAATCACCGATCGGCG 1020
Db 1436 TGAAGAAATGCTCGCGCAGGTTGAGATTTGGAGAGATTAATTAATCACCGATCGGCG 1495
QY 1021 ATGGCGTGGGTTGAAGAGTACATCCAGCATGAGAAATCCGTTGAGGTGGGCAATGCTG 1080
Db 1496 ATGGCGTGGGTTGAAGAGTACATCCAGCATGAGAAATCCGTTGAGGTGGGCAATGCTG 1555
QY 1081 GCCTGTGTTAGCGGCGCTGCGTGAATGCTCCAAATGAGGCGGATGCTGATTCAT 1140
Db 1556 GCCTGTGTTAGCGGCGCTGCGTGAATGCTCCAAATGAGGCGGATGCTGATTCAT 1615
QY 1141 TGGGTAGGATTTCCCTTAATCTGATTTCTTCTTAAGACACGTTGCCAGGTGATA 1200
Db 1616 TGGGTAGGATTTCCCTTAATCTGATTTCTTCTTAAGACACGTTGCCAGGTGATA 1675
QY 1201 TCAAGGTGGGCAATTTGTCAGGTACACGAGTGAAGTATCCGGTGAACGGTATGTTG 1260

Db 1676 TCAAGGTGGGCAATTTGTCAGGTACACGAGTGAAGTATCCGGTGAACGGTATGTTG 1735
QY 1261 CTGCAACATGGAATAATTTTGTCTCATGGAAGAAAAACAGATGTTCTTCTTG 1320
Db 1736 CTGCAACATGGAATAATTTTGTCTCATGGAAGAAAAACAGATGTTCTTCTTG 1795
QY 1321 ATCGAATGCTCAAGGCAACAGAGCTAAGTTAGCTCGGTGGTGAAGCGTACACATA 1380
Db 1796 ATCGAATGCTCAAGGCAACAGAGCTAAGTTAGCTCGGTGGTGAAGCGTACACATA 1855
QY 1381 ACGTCGAAGACATGCTCTTTCACCTGAAATACGTTGGCTCTAATTTTGAACGAGCTG 1440
Db 1856 ACGTCGAAGACATGCTCTTTCACCTGAAATACGTTGGCTCTAATTTTGAACGAGCTG 1915
QY 1441 CGGATTAAGATGCGGTGTTTACTGTGATAACGGCATGCAATGTGSCATGCGAGGT 1500
Db 1916 CGGATTAAGATGCGGTGTTTACTGTGATAACGGCATGCAATGTGSCATGCGAGGT 1975
QY 1501 ACATCGAATCCGAGAGGAAACGCGCACTTGTGGGTTCAATCCGCCACGCGACGATGG 1560
Db 1976 ACATCGAATCCGAGAGGAAACGCGCACTTGTGGGTTCAATCCGCCACGCGACGATGG 2035
QY 1561 CTAATGGCTTGCCTCATGCGATTTGGTGGCAAAAGTTGATCGAAACCGCCAGGATGCG 1620
Db 2036 CTAATGGCTTGCCTCATGCGATTTGGTGGCAAAAGTTGATCGAAACCGCCAGGATGCG 2095
QY 1621 CGATGTGTGGCGATGTGTTTGGGCAATGCTGTGGGTGAGCTTCTGACCGTTAAGCTGC 1680
Db 2096 CGATGTGTGGCGATGTGTTTGGGCAATGCTGTGGGTGAGCTTCTGACCGTTAAGCTGC 2155
QY 1681 ACCAATTCGCGTGAAGGCTGTGTTTAAACAAGTTCTTTTGGGCAATGGAAGTTGG 1740
Db 2156 ACCAATTCGCGTGAAGGCTGTGTTTAAACAAGTTCTTTTGGGCAATGGAAGTTGG 2215
QY 1741 AGATGCTGTGGAGGAGACAGCAGATTTGTTACTGACCAAGAGAAATTTCCGAG 1800
Db 2216 AGATGCTGTGGAGGAGACAGCAGATTTGTTACTGACCAAGAGAAATTTCCGAG 2275
QY 1801 AGATTTGGCGGCGCTGCGGGTATCAATTCGTAACGATCAGCATCCGAAAGAAATTCGCG 1860
Db 2276 AGATTTGGCGGCGCTGCGGGTATCAATTCGTAACGATCAGCATCCGAAAGAAATTCGCG 2335
QY 1861 AGCAGCTGCTGAAGGCAATTTGGCATTCCTGSAACCTGTAATGATATGTCACGAGATC 1920
Db 2336 AGCAGCTGCTGAAGGCAATTTGGCATTCCTGSAACCTGTAATGATATGTCACGAGATC 2395
QY 1921 CTAATGGCTGTGATCCCAACAACATCAGTGGGAAACAGTCAATGGATTCAGCAAG 1980
Db 2396 CTAATGGCTGTGATCCCAACAACATCAGTGGGAAACAGTCAATGGATTCAGCAAG 2455
QY 1981 CGGCCACCCGAACCGTCTTTTGTGAGAGTGAAGCGATGATGATCTGGCCGTTGCA 2040
Db 2456 CGGCCACCCGAACCGTCTTTTGTGAGAGTGAAGCGATGATGATCTGGCCGTTGCA 2515
QY 2041 ACATTAAGAAATTTCTTATCTCATGATGATTAACATCTGCTTCTCATTTAGCCGCA 2100
Db 2516 ACATTAAGAAATTTCTTATCTCATGATGATTAACATCTGCTTCTCATTTAGCCGCA 2575
QY 2101 GCGCTTAATGCGCAAAATTTCCAGATGAGCGCTCAACGCGGTGCGCATGAGATTGCCCT 2160
Db 2576 GCGCTTAATGCGCAAAATTTCCAGATGAGCGCTCAACGCGGTGCGCATGAGATTGCCCT 2635

RESULT 3
US-09-965-825-3
; Sequence 3, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; TITLE OF INVENTION: CORINFORM BACTERIA

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? FILE REFERENCE: 213524US0X
? CURRENT APPLICATION NUMBER: US/09/965,825
? PRIOR FILING DATE: 2001-10-01
? CURRENT APPLICATION NUMBER: DE 10048604.5
? PRIOR FILING DATE: 2000-09-30
? PRIOR APPLICATION NUMBER: DE 10117085.8
? PRIOR FILING DATE: 2001-04-06
? NUMBER OF SEQ ID NOS: 14
? SOFTWARE: PatentIn version 3.1
? SEQ ID NO 3
? LENGTH: 875
? TYPE: DNA
? ORGANISM: Corynebacterium glutamicum
? US-09-965-825-3

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Query Match	40.5%;	Score 875;	DB 1;	Length 875;
Best Total Similarity	100.0%	Score 1507		

Matches 875; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 705 TGCAGAGTGTGAATGTGTGTGACAGGGGTGAACGCATTTTGCATCACCGGATTAGTCC 764

Db 1 TCGAGAGTGTGAATGTGTGTGACAGGGGTGAACGCATTTTGCATCACCGGATTAGTCC 60

QY 765 ACCATGCGGGTAAAGGTGTGTCGGTGTAGTGTCTCCGTGTGTAATCGTTAAGAGAG 824

Db 61 ACCATGCGGGTAAAGGTGTGTCGGTGTAGTGTCTCCGTGTGTAATCGTTAAGAGAGAC 120

825 GCAGGAGACGGACATATTCACAAATCCACATATTTCTCGACACTCTGGGTGTTCCG 884
 121 GCAGGTACCGTACTATTCCCAATTCACATATTTCTCGACACTCTGGGTGTTCCG 180

Db QY 885 GATCCTACTGAGGCTGCAGCGCTGCTGTGAGGCGATTAAACAACGCTTAAGTGTGCTACTTTG 944
181 GATCCTACTGAGGCTGCAGCGCTGCTGTGAGGCGATTAAACAACGCTTAAGTGTGCTACTTTG 240

241 TTCTGCGGTCGCGGCGTGAAGAAAGCTCGCGCGGACGCTGTTCGACTTGGCGGAGAGATT 300
 245 TTCTGCGGTCGCGGCGTGAAGAAAGCTCGCGCGGACGCTGTTCGACTTGGCGGAGAGATT 100
 249 TTCTGCGGTCGCGGCGTGAAGAAAGCTCGCGCGGACGCTGTTCGACTTGGCGGAGAGATT 100

Db 301 AATCACCAGATCGGGCATCGCTGGGTGTAAGCAGTACTCCAGCATGAGATCGTT 360

361 GAGGTGGCATGTCCTGGCTGCTGGTTCACGGCGCCTGGTGATGCGTCCAAATGAGCGC 420
 Db
 361 GAGGTGGCATGTCCTGGCTGCTGGTTCACGGCGCCTGGTGATGCGTCCAAATGAGCGC 420
 Dp
 361 GAGGTGGCATGTCCTGGCTGCTGGTTCACGGCGCCTGGTGATGCGTCCAAATGAGCGC 420

Db 421 GACTCGCATTCATTGGGACGGAATTCCTATTCTGATTCCTTCTAAAGACAAC 480

Db 481 GTGCCCCAGGTGATATCAACGGTCGCGCATTTGGTCGACGTACCAACGGTGAAGATCCG 540

Db 541 GTGACCGGTGATGTGCTGCACACATCGAAATATTTTGCTCATGTGAAGGAAAAACA 600

Db
601 GATCGTTCCTTCCTTGATCGAGTCTCAAGGCACACGACGTAAGTTGAGCTCGGTGTA 660

D6 661 GAGACGTACACATTAACGTGGAGAAGCATGTGCTATTACCCCTGAATAACGTTGCCCTT 720

Db 721 ATTTCAGCAGCTGGCGGATTAAGSAGTCGGTGTTCACGTGGATACCGGCATGTGCAAT 780

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QY 1545 CGCACGCGACGATGCTAATGCGTTGCTCATGC 1579

Db 841 CGCACGCGACGATGCTAATGCGTTGCTCATGC 875

RESULT 4
US-09-965-825-12
; Sequence 12, Application US/09965825

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:
: APPLICANT: DUSCH, Nicole
:
: APPLICANT: THOMAS, Hermann
:
: APPLICANT: THIERBACH, Georg
:

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: TITLE OF INVENTION: CORYNEFORM BACTERIA
:
: FILE REFERENCE: 21354US0X
:
: CURRENT APPLICATION NUMBER: US/09/965,825

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; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8

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; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 12

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; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-12
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Query Match	15.0%;	Score 324.4;	DB 1;	Length 1422;
Best Local Similarity	99.7%;	Pred. No. 1.7e-31;		
Matches 325;	Conservative 0;	Mismatches 1;	Indels 0;	Gaps 0

Dy 1 TTGAGGGCGATTCTGTAGCTACTTTTGTGGGTCGAGGCTCTAAATTTGGCCAGTTTT 60
Dd 398 TTGAGGGCGATTCTGTAGCTACTTTTGTGGGTCGAGGCTCTAAATTTGGCCAGTTTT 457

Qy 61 CGAGGCGCACGACAGGCGTCCACGAGCTTTAATAGGCGATCGGTCTGT 120

Db 458 CGAGGCGCACGACAGGCGTCCACGAGCTTTAATAGGCGATCGGTCTGT 517

Qy 121 TTGGTTTGACGGGCTGAAACCAACAGACTGCCAGCAACGCGAAATCCCAAAAGT 180

Dp 518 TTGGTTTGACGGGCTGAAACCAACAGACTGCCAGCAACGCGAAATCCCAAAAGT 577

Dy 181 GGCATCCTGTTGGTACGAGAACCCACCGGCGCTGAACTCCTGGCAGCGGCG 240
|||
Dd 578 GGCATCCTGTTGGTACGAGAACCCACCGGCGCTGAACTCCTGGCAGCGGCG 637

241 AACGCGGCAACCACTGGATTTAAGAGCACAATTGAAGTCGACCAAGTTAGGCACAC 300
 638 AACCGTGCAACCACTGGATTTAAGAGCACAATTGAAGTCGACCAAGTTAGGCACAC 697

DY	301 AATAGCCCAACGTTGAGGAGTTCAG	346
DQ	698 AATAGCCATAAAGTTGAGGAGTTCAG	723

RESULT 5
US-09-965-825-12/c
Sequence 12 Annotation ttc/00000000

GENERAL INFORMATION:
 APPLICANT: DUSCH, Nicole
 APPLICANT: THOMAS, Hermann
 APPLICANT: TITENBACH, Georg

	PREPARATION OF D-PANICOTHEMIC ACID
1	TITLE OF INVENTION: CORNEFORM BACTERIA
2	TITLE OF INVENTION: PROCESSES FOR THE FERMENTATIVE
3	FILE REFERENCE: 21354US0X
4	CURRENT APPLICATION NUMBER: US/068/965 925

PRIOR APPLICATION NUMBER: DE 10048604.5

```
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 12
; LENGTH: 1422
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-12
```

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Query Match      2.2%; Score 46.8; DB 1; Length 1422;
Best Local Similarity 60.0%; Pred. No. 0.0037;
Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
```

```
QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGCGCATCTGTGTGTTT 127
DB 594 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCTGGGACAGTCTGTGTTT 535
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGAAATCCCAAAAGTGGCATC 187
DB 534 CAGCCCGTCGAACCAACCAACGAGATGCCACCGATGCTTAAATTTAAACATCGTGGGACG 475
QY 188 CCGTGTGTGT 197
DB 474 CCGTGTGTGT 465
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RESULT 6

```
US-09-965-825-1/c
; Sequence 1, Application US/09965825
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```
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID U
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 1
; LENGTH: 2160
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (327)..(2063)
; OTHER INFORMATION:
; NAME/KEY: -35 signal
; LOCATION: (227)..(232)
; OTHER INFORMATION:
; NAME/KEY: -10 signal
; LOCATION: (256)..(261)
; OTHER INFORMATION:
US-09-965-825-1
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Query Match      2.2%; Score 46.8; DB 1; Length 2160;
Best Local Similarity 60.0%; Pred. No. 0.0027;
Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
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```
QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGCGCATCTGTGTGTTT 127
DB 197 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCTGGGACAGTCTGTGTTT 138
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGAAATCCCAAAAGTGGCATC 187
DB 137 CAGCCCGTCGAACCAACCAACGAGATGCCACCGATGCTTAAATTTAAACATCGTGGGACG 78
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```
QY 188 CCGTGTGTGT 197
DB 77 CCGTGTGTGT 68
```

RESULT 7

```
US-09-965-825-4/c
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4
```

```
Query Match      2.2%; Score 46.8; DB 1; Length 3248;
Best Local Similarity 60.0%; Pred. No. 0.002;
Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;
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```
QY 68 ACCAGACAGGCGTGGCCACGATGTTAAATAGCGATCGTGCGCATCTGTGTGTTT 127
DB 672 ACCAAACAGGGATGCCACATTTTGGGATTTCCGTCGTTGCTGGGACAGTCTGTGTTT 613
QY 128 CGACGGCTGAACCAACCAACGAGCTGCCGACCAACGACGAAATCCCAAAAGTGGCATC 187
DB 612 CAGCCCGTCGAACCAACCAACGAGATGCCACCGATGCTTAAATTTAAACATCGTGGGACG 553
QY 188 CCGTGTGTGT 197
DB 552 CCGTGTGTGT 543
```

RESULT 8

```
US-09-965-825-10
; Sequence 10, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 10
; LENGTH: 26
; TYPE: DNA
; ORGANISM: Artificial Sequence
```

FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-10

Query Match 1.2%; Score 26; DB 1; Length 26;
Best Local Similarity 100.0%; Pred. No. 10;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2064 TGATGATGATACACCTGCTGTTCTC 2089

Db 1 TGATGATTGATACACTGCTGTTCTC 26

RESULT 9
US-09-965-825-9/c

Sequence 9, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 9
LENGTH: 48
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-9

Query Match 1.2%; Score 25.2; DB 1; Length 48;
Best Local Similarity 90.0%; Pred. No. 7.8;
Matches 27; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 2060 TCATGATGATGATACACTGCTGTTCTC 2089

Db 30 TCATGATGATGATGATACACTGCTGTTCTC 1

RESULT 10
US-09-965-825-3/c

Sequence 3, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 3
LENGTH: 875
TYPE: DNA
ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

Query Match 0.9%; Score 20.4; DB 1; Length 875;

Best Local Similarity 61.1%; Pred. No. 2.4;
Matches 33; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

QY 290 TTAGGCAACACATAGCCATTAGCTTGAGAGTTGAGTGCACACAGCTACGC 343

Db 872 TGAAGCAACGATGATGACCATGCTGCGTGGCGGATGAACCCACAAAGTCCGCG 819

RESULT 11
US-09-965-825-13

Sequence 13, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 13
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-13

Query Match 0.9%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 50;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 705 TGCAGATGATGATGATGTTGG 724

Db 1 TGCAGATGATGATGATGTTGG 20

RESULT 12
US-09-965-825-14/c

Sequence 14, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THIERSBACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
CURRENT FILING DATE: 2001-10-01
PRIOR APPLICATION NUMBER: DE 10048604.5
PRIOR FILING DATE: 2000-09-30
PRIOR APPLICATION NUMBER: DE 10117085.8
PRIOR FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 14
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic DNA
US-09-965-825-14

Query Match 0.9%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 50;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1560 GCTATGGCTTGCCTCATGC 1579
 |||||
 Db 20 GCTAATGGTTGCTCTCATGC 1

RESULT 13
 US-09-965-825-7

```

; Sequence 7, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERRACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; LENGTH: 613
; SEQ ID NO 7
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-7

```

Query Match 0.9%; Score 18.4; DB 1; Length 613;
 Best Local Similarity 63.6%; Pred. No. 4.7;

Matches 28; Conservative 0; Mismatches 16; Indels 0; Gaps 0;

QY 2115 ACATTTCAGAGTGGCAGCTCACCCGGGTGCCCATGAGATTGCC 2158
 |||||
 Db 33 AAATTGGCAGATGCGAGTGCAGCCGGTGGCCGAGGAGATCAC 76

RESULT 14

```

US-09-965-825-6
; Sequence 6, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERRACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 475
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-6

```

Query Match 0.7%; Score 15.8; DB 1; Length 475;
 Best Local Similarity 60.5%; Pred. No. 9.5;

Matches 26; Conservative 0; Mismatches 17; Indels 0; Gaps 0;

QY 1733 GAAGTTGAGATGCTGAGGAGACGACGAGATTGTGACT 1775
 |||||
 Db 424 GAGGTGGAATGCTGAGGAGACTGTCTGAGCGTGGGTGGTCT 466

RESULT 15
 US-09-965-825-7/c

```

; Sequence 7, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERRACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORYNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 613
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-7

```

Query Match 0.7%; Score 15.6; DB 1; Length 613;
 Best Local Similarity 63.2%; Pred. No. 7.9;

Matches 24; Conservative 0; Mismatches 14; Indels 0; Gaps 0;

QY 662 GGAACGCAATCCGAGATTGTTTAAAGATGCTCTG 699
 |||||
 Db 202 GGAATTCTTCGGGGATCGGCTTCAGGCGTTGCAC 165

Search completed: November 25, 2003, 06:22:02
 Job time : 11 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - nucleic search, using frame_plus_p2n model

Run on: November 25, 2003, 06:26:38 ; Search time 4 Seconds

(without alignments)
2.590 Million cell updates/sec

Title: us-09-965-825-2

Sequence: 1

Sequence: 1 MAHVAEQLDITAEAGVKK.....GGVGMIDLARSNIRNIPTP 579

Scoring table:

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Xgapop 10.0	Xgapext 0.5		
Ygapop 10.0	Ygapext 0.5		
Fgapop 6.0	Fgapext 7.0		
Delop 6.0	Delext 7.0		

Searched: 12 seqs, 8947 residues

Total number of hits satisfying chosen parameters: 24

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Command line parameters:

-MODEL=frame+ p2n.model -DEV=soft -Q=us-09-965-825-2 -DB=US09965825.seq
-SUFFIX=pro -OUT=align2_nuc -MINMATCH=0.1 -LOOPEXT=0 -LOOPEXT=0 -UNITS=bits
-START=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALLIGN=200
-THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pro
-NORM=ext -HEADSIZE=500 -MTNLEN=0 -MAXLEN=2000000000 -NCPU=6 -NO_XIPPX
-NEG_SCORES=0 -LONGLOG -THREAS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOF=6 -FGAPEXT=7
-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : US09965825.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2985	100.0	2160	1	US-09-965-825-1
2	2985	100.0	3248	1	US-09-965-825-4
3	1518	50.9	875	1	US-09-965-825-3
4	48.5	1.6	1422	1	US-09-965-825-12
5	46	1.5	3248	1	US-09-965-825-4
6	45.5	1.5	613	1	US-09-965-825-7
7	45	1.5	2160	1	US-09-965-825-1
8	40.5	1.4	875	1	US-09-965-825-3
9	40	1.3	1422	1	US-09-965-825-12
10	39	1.3	613	1	US-09-965-825-7
11	37	1.2	475	1	US-09-965-825-6
12	35	1.2	20	1	US-09-965-825-13
13	33	1.1	20	1	US-09-965-825-14
14	32	1.1	475	1	US-09-965-825-6
15	24	0.8	48	1	US-09-965-825-9
16	21	0.7	20	1	US-09-965-825-8
17	20	0.7	48	1	US-09-965-825-9
18	20	0.7	20	1	US-09-965-825-11
19	20	0.7	26	1	US-09-965-825-10
20	18	0.6	20	1	US-09-965-825-13
21	17	0.6	26	1	US-09-965-825-10

C	22	16	0.5	20	1	US-09-965-825-8	Sequence 8, Appl1
C	23	15	0.5	20	1	US-09-965-825-14	Sequence 14, Appl1
C	24	14	0.5	20	1	US-09-965-825-11	Sequence 11, Appl1

ALIGNMENTS

RESULT 1

US-09-965-825-1
; Sequence 1, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: Patent version 3.1
; SEQ ID NO 1
; LENGTH: 2160
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (327)..(2063)
; OTHER INFORMATION:
; NAME/KEY: -35 signal
; LOCATION: (227)..(232)
; OTHER INFORMATION:
; NAME/KEY: -10 signal
; LOCATION: (256)..(261)
; OTHER INFORMATION:
; US-09-965-825-1

Alignment Scores:

Pred. No.:	0	Length:	2160
Score:	2985.00	Matches:	579
Percent Similarity:	100.00%	Conservative:	0
Best Local Similarity:	100.00%	Mismatches:	0
Query Match:	100.00%	Indels:	0
DB:	1	Gaps:	0

us-09-965-825-2 (1-579) x US-09-965-825-1 (1-2160)

QY	1	MetAlAhISeSerTyZaIaGluGlnLeuIleAspThrLeuGluAaGlnGlyValIysArg	20
DB	327	ATGGCAACAGCTTACCGACAACTTAATTTGACACTTTGGAACTCAAGGTGAAAGCGA	386
QY	21	IleTyGlyLeuValGlyAspSerLeuAsnProIleValAspAlaValArgGlnSerAsp	40
DB	387	ATTATGTTGGTGGTGACAGCCTTAATCCGATCGTGGATCGTCCGCCAATCGAT	446
QY	41	IleGluTrpValHisValArgAsnGluGluAlaAlaPheAlaIleValIleGluSer	60
DB	447	ATTGATGGGTGCACCTTGAATGAGGAGCGCGCTTGCCACCGGTGGGGAATCG	506
QY	61	LeuIleThrGlyGluLeuAlaValCysAlaIleSerCysGlyProGlyAsnThrHisLeu	80
DB	507	TTCATCAGCGGAGAGCTGCAGTATGCTGCTTCTTGCTGCTTGGAAACACACACTG	566
QY	81	IleGlnGlyLeuTrpAspSerHisArgAsnGlyAlaIleValIleValIleAlaSerHis	100
DB	567	ATTCAGGGGCTTATGATTCGCATCGAATGGGCGCAAGGTGGCCATCGCTAGCAT	626
QY	101	IleProSerAlaGlnIleGlySerThrPhePheGlnGluThrHisProGluIleLeuPhe	120


```

Db      627 ATTCCGAGTCCGCGAGTTGTCGACGTTCTTCCAGGAAACGCAATCCGAGATTTCGTTT 686
Qy      121 LysGluCysSerGlyTyrCysGluMetValAsnGlyGluGlnGlyLysArgIleLeu 140
Db      687 AAGGAATCTCTGTGTACTGCGAGATGCGTAATGCGTGTGAGCAGGGAACGCAATTTTG 746
Qy      141 HisHisAlaIleGlnSerThrMetAlaGlySerGlyValSerValValIleProGly 160
Db      747 CATACCGGATTCATGATCCACCATGCGGGTAAAGGTGTGTGCGTGTGTGATTCCTGGT 806
Qy      161 AspIleAlaGlySerAlaGlyAspGlyThrTyrSerAsnSerThrIleSerSerGly 180
Db      807 GATATCGGTAAAGAAAGCAGGTGACCGTACTTATTCCAATTCACATTTCTTCGCGC 866
Qy      181 ThrProValIlePheProAspProThrGluAlaAlaIleValIleValIleAsnAsn 200
Db      867 ACTCTGTGTGTCTCCGAGATCTTACTAGAGCTGACAGCGCTGTGTGTGTGTGTGTGTG 926
Qy      201 AlaIysSerValIleThrLeuPheCysGlyAlaGlyValIlysaAlaIleArgAlaGlnValLeu 220
Db      927 GCTAAGTCTGTCACTTTGTTCTGTGGGTCGCGGCGTGAAGAAATGCTCCGCGCAGGTGTG 986
Qy      221 GluLeuAlaGluIlyValIleIysSerProIleGlyHisAlaLeuGlyIlyGlnIlyrIle 240
Db      987 GAGTTGGCGGAGAAAGATTAAATCACCGATCGGCAATGCGGTGTGTGTGTGTGTGTGTG 1046
Qy      241 GlnHisGluAsnProPheGluValAlaGlyMetSerGlyLeuLeuGlyTyrGlyAlaCysVal 260
Db      1047 CAGCATGAGATCCGTTTGAGGTGCGGCAATGTCTGCGCTGCTGTGTGTGTGTGTGTGTG 1106
Qy      261 AspaIaSerAsnGluAlaAspLeuLeuIleLeuLeuGlyThrAspPheProTyrSerAsp 280
Db      1107 GATCGGTCCATGAGCGCGATCTGCTGATTCATATGCGGTGTGTGTGTGTGTGTGTGTG 1166
Qy      281 PheLeuProIlysaAsnValAlaGlnValAspIleAsnGlyAlaHisIleGlyArgArg 300
Db      1167 TTCCTTCCTAAAGAACAGGTCGCCAGGTGATTAACAAGGTGTGTGTGTGTGTGTGTG 1226
Qy      301 ThrThrValIlyTyrProValIleThrGlyAspValAlaAlaThrIleGlnAsnIleLeuPro 320
Db      1227 ACCACGCGTGAAGTATCCGTCGATCCGTCATGTGTGTGTGTGTGTGTGTGTGTGTG 1286
Qy      321 HisValIlyGluIlyThrAspArgSerPheLeuAspArgMetLeuIlysaHisGluArg 340
Db      1287 CATGTGAAGGAAAAAAGCATGCTTCCTTCCTGTGATCCGATGCTCAAGGCAACAGAGCGT 1346
Qy      341 LysLeuSerSerValValIleGluThrThrHisAsnValIleGluValHisValProIleHis 360
Db      1347 AAGTTGAGCTCGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1406
Qy      361 ProGluTyrValAlaSerIleLeuAsnGluLeuAlaAspIlysaAspAlaValPheThrVal 380
Db      1407 CCGTAATACGTTCCCTTATTTTGAACGAGTCGCGGATTAAGAGATCGCGTGTGTGTGTG 1466
Qy      381 AspThrGlyMetCysAsnValIlePheHisAlaArgIlyIleGluAsnProGluGlyThrArg 400
Db      1467 GATACCGGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1526
Qy      401 AspPheValIlySerPheArgHisGlyThrMetAlaAsnAlaLeuProHisAlaIleGly 420
Db      1527 GACTTGTGGGTCTTCTCCGACGCGACGAGGTGTAAATGCGTGTGTGTGTGTGTGTGTG 1586
Qy      421 AlaGlnSerValAspArgAsnArgGlnValIleAlaMetCysGlyAspGlyIlyLeuGly 440
Db      1587 GCGCAAAATGTTGATCGAAACCGGACAGGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1646
Qy      441 MetLeuLeuGlyGluLeuLeuThrValIlyLeuHisGlnLeuProLeuIlysaAlaVal 460
Db      1647 ATGCGCTGGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1706
Qy      461 PheAsnAsnSerSerLeuGlyMetValIlyLeuGluMetLeuValIleGluIlyGlnProGlu 480
Db      1707 TTAAACAACATTTCTTTGGGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1766

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Qy      481 PheGlyThrAspHisGluGluValAsnPheAlaGluIleAlaAlaAlaGlyIleIys 500
Db      1767 TTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1826
Qy      501 SerValArgIleThrAspProIlysaValArgGluGlnLeuAlaGluAlaIleArg 520
Db      1827 TCGGTACGATCACCGATCCGAGAAAGTTGCGACGAGCTGTGTGTGTGTGTGTGTGTG 1886
Qy      521 ProGluProValIleLeuIleAspIleValIleThrAspProAsnAlaLeuSerIleProProThr 540
Db      1887 CCGGACCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 1946
Qy      541 IleThrProGluGlnValIleMetGlyPheSerIysAlaIleThrArgThrValPheGly 560
Db      1947 ATCAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 2006
Qy      561 GlyValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThrPro 579
Db      2007 GGAAGTAGAGGAGATGATGATCTGCGCGTTCGAACATTAAGAAATATTCCTACTCCA 2063

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RESULT 2

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US-09-965-825-4
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: CORNEFORM BACTERIA
; CURRENT APPLICATION NUMBER: US/09/965, 825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802)..(2538)
; OTHER INFORMATION:
US-09-965-825-4

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Alignment Scores:

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Pred. No.: 0 Length: 3248
Score: 2985.00 Matches: 579
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 100.00% Indels: 0
DB: 1 Gaps: 0

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us-09-965-825-2 (1-579) x US-09-965-825-4 (1-3248)

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Qy      1 MetAlaHisSerTyrAlaGluGlnLeuIleAspThrLeuGluAlaGlnIlyValIlysaArg 20
Db      802 ATGCACACACACTCGCAGAAACAATTATACACTTGTGAAGCTCAAGAGTGTGAAGCGA 861
Qy      21 IleTyrGlyLeuValIlyAspSerLeuAsnProIleValAspAlaValArgIleAsp 40
Db      862 ATTATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 921
Qy      41 IleGluTyrValIleValArgAsnGluGluAlaAlaIleAlaIleAlaIleAlaGlyIlyser 60
Db      922 ATTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 981
Qy      61 LeuIleThrGlyGluLeuAlaValCysAlaAlaSerCysGlyProGlyAsnThrHisLeu 80

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Db      982 TTGATCACTGGGAGCTGGCAGTATGTCCTTTGTCCTGGAAACACACACTG 1041
QY      81  IIEGLNGLYLeuTYrAspSerHisArgAsnGlyAlaLysValLeuAlaIleAlaSerHis 100
Db      1042 ATTCAGGCTCTTATGATTCGATCGCAATGTCGCAAGGTGTTGGCCATCGCTAGCCAT 1101
QY      101  IIEProSerAlaGlnIIEGlySerThrPhePheGlnGluThriHisProGluIIEuPhe 120
Db      1102 ATTCACAGTGCACGATGGTTCGATGCTTCTCCAGAAACGCATCCGGAGATTGTTT 1161
QY      121  LysGluCysSerGlyTYrCysGluMetValAsnGlyGlyGluGlnGlyIIEu 140
Db      1162 AAGGAATGCTCTGCTGTTACTCGAGATGCTAATGTCGTGACGAGGGTGAAACCATTTTG 1221
QY      141  HisHisAlaIIEGlnSerThrMetAlaGlyLysGlyValSerValValIIEProGly 160
Db      1222 CATCAGCCGATTCAGTCCACCATGGCGGGTAAAGGTGTGCGTGGAGTATTCCTGCT 1281
QY      161  AspIIEAlaLysGluAspAlaGlyAspGlyThrTYrSerAsnSerThrIIESerSerGly 180
Db      1282 GATATCGCTAAGGAAACGCGAGGTGACGGTACTTATTCCAATTCCTATTTCTCTGGC 1341
QY      181  ThrProValValPheProAspProThrGluAlaAlaAlaLeuValGluAlaIIEAsnAsn 200
Db      1342 ACTCCTGTGGTGTCCCGGATCCTACTGAGCTGCGACGCTGTGGAGGCGCATTTACAC 1401
QY      201  AlaLysSerValThrIIEuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValIIE 220
Db      1402 GCTAAGTCTGCTACTTTGTTCTCGGGTGGCGGCGTGAAGATCTCGCGCGGCGAGTGG 1461
QY      221  GluLeuAlaGluLysIIEuLysSerProIIEGlyHisAlaLeuGlyGlyLysGlnTYrIIE 240
Db      1462 GAGTTGGCGGAGAGATTAATACCGATCGGCGATGCGGTGGTGAAGCGTACATC 1521
QY      241  GlnHisGluAsnProPheGluValGlyMetSerGlyLeuLeuGlyTYrGlyAlaCysVal 260
Db      1522 CAGCATGAGATCCGTTGAGTCCGCACTCTGCGCTGTTGGTTACGGCGCTGCGTG 1581
QY      261  AspAlaSerAsnGluAlaAspLeuLeuIIEuLeuGlyThrAspPheProTYrSerAsp 280
Db      1582 GATGCTCCAAATAGCGCGATCTGCTGATCTTATTTGGATTCGATTTCCCTTATTCGAT 1641
QY      281  PheLeuProLysAspAsnValAlaGlnValAspIIEAsnGlyAlaHisIIEGlyValArg 300
Db      1642 TTCCTTCTTAAACACAGTTCGCCAGGTGATATACCGTGGCGACATTTGCTACACG 1701
QY      301  ThrThrValLysTYrProValThrGlyAspValAlaAlaThrIIEGluLeuIIEuPro 320
Db      1702 ACCACGCTGAAGTATCGGTGACCGGTGATGTTGCTGCACAAATCCAAATATTTGCC 1761
QY      321  HisValLysGluLysThrAspArgSerPheLeuAspArgMetLeuLysAlaHisGluArg 340
Db      1762 CATGTGAAGGAAAAACAGATCGTCTCTCTTCCTTCGATCGCTCAAGGACACAGACGT 1821
QY      341  LysLeuSerSerValValGluTYrTYrThrHisAsnValGluLysHisValProIIEHis 360
Db      1822 AAGTTGAGCTCGGTGGTGAAGACGTACACACATTAAGCGTGAAGAGATGCTATTTCC 1881
QY      361  ProGluTYrValAlaSerIIEuAsnGluLeuAlaAspLysAspAlaValPheThrVal 380
Db      1882 CCGAATATACGTTGCCCTATTGTTGAACGAGCTGGCGGATAGGATCGGCTTTACTG 1941
QY      381  AspThrGlyMetCysAsnValTYrHisAlaArgTYrIIEGluAsnProGluGlyThrArg 400
Db      1942 GATACCGGATGCGCATGTGTGGCATGCGAGGTACATCGAGAAATCCGGAGGAAACGCC 2001
QY      401  AspPheValGlySerPheArgHisGlyTYrThrMetAlaAsnAlaLeuProHisAlaIIEGly 420
Db      2002 GACTTTGTGGTTCATTCGCCACCGCACAGATGGCTTAATGCGTTGCTCATGGATTTGG 2061
QY      421  AlaGlnSerValAspArgAsnArgGlnValIIEAlaMetCysGlyAspGlyGlyLeuGly 440
Db      2062 GCGCAAGTGTGATGAAACCGCCAGGTGATCGCATGTGTGGCTTTGGGG 2121

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QY      441  MetLeuLeuGlyGluLeuLeuThrValLysLeuHisGlnLeuProLeuLysAlaValVal 460
Db      2122 ATCTGCTGGGTAGCTTCTTGACCGCTTAAGCTCACCAATCTCCGTTGAAGGCTGTG 2181
QY      461  PheAsnAsnSerSerLeuGlyMetValLysLeuGluMetLeuValGluGlyGlnProGlu 480
Db      2182 TTTAACAAAGTTCCTTTGGGCATGTCGAAGTTGGAGATGCTCTGGAGGACACGCAGAA 2241
QY      481  PheGlyTYrAspHisGluGluValAsnPheAlaGluIIEAlaAlaAlaIIEGlyLys 500
Db      2242 TTGGTACTGACCATATGAGATGAAATTTTCGACAGATTCGGCGGCTGGGATATPAA 2301
QY      501  SerValArgIIEThrAspProLysLysValArgGluGlnLeuAlaGluAlaLeuAlaTYr 520
Db      2302 TCGGTACGATCACCGATCCGAGAAAGTTCCGAGACAGTACTGAGGCATTTGCGCAT 2361
QY      521  ProGlyProValLeuIIEAspIIEValThrAspProAsnAlaLeuSerIIEProProThr 540
Db      2362 CCTGGAACCTGTACTGATCATATCATGTCACGAGTCTTAATCCGCTGTGATCCACCAAC 2421
QY      541  IIEThrTropGluGlnValMetGlyPheSerLysAlaAlaThrArgThrValPheGlyGly 560
Db      2422 ATACGTGGAGACAGATCATGATTCAGCAAGGCGGCCACCGAAACGATTTGGTGA 2481
QY      561  GlyValGlyAlaMetIIEAspLeuAlaArgSerAsnIIEArgAsnIIEProThrPro 579
Db      2482 GGAGTGAAGCATGATCATCTGCGCCGTTGCAACATTAAGATATTTCTACTCCA 2538

RESULT 3
US-09-965-825-3
; Sequence 3, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIORITY FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 875
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

Alignment Scores:
Pred. No.: 6,21e-235 Length: 875
Score: 1518.00 Matches: 291
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 50.85% Indels: 0
DB: 1 Gaps: 0

us-09-965-825-2 (1-579) x US-09-965-825-3 (1-875)
QY      127  CysGluMetValAsnGlyGlyGluGlnGlyGluArgIIEuHisHisAlaIIEGlnSer 146
Db      1  TCGAGATGCTGAATGCTGTGAGCAGGCTGAACGCAATTTTGCATCACGCGATTCAGTCC 60
QY      147  ThrMetAlaGlyLysGlyLysValSerValValIIEProGlyAspIIEAlaLysGlyAsp 166
Db      61  ACCATGGCGGTAAGGTGTGTGCGGTGATGATTCCTGTGATATCCCTAAGAAAGAC 120
QY      167  AlaGlyAspGlyThrTYrSerAsnSerThrIIESerSerGlyThrProValValPhePro 186

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Db      121 GCAGGTACGGTACTTATTCCAATTCATTTCTTCTGCGACTCTGTGGTCTCCG 180
Qy      187 AspProThrGluAlaAlaAlaLeuValGluAlaIleAsnAlaIleSerValThrLeu 206
Db      181 GATCTACTAGAGCTGACGCTGTGTGAGCGCATTAACAACGGTAGTGTGACTTTG 240
Qy      207 PheCysGlyAlaGlyValValLeuAsnAlaArgAlaGlnValLeuGluLeuAlaGluLysIle 226
Db      241 TTCTGCGGTGCGGCGTGAAGAAATGCTCGCGCAGGGTGTGGAGTTGGCGGAAGAAATT 300
Qy      227 LysSerProIleGlyHisAlaLeuGlyGlyLysGlnIleGlnHisGlnLysProPhe 246
Db      301 AAATCACCAGATCGGGCAATGGCTGGTGGTGAAGATCAACGACATGAAGAAATCCGTTT 360
Qy      247 GluValGlyMetSerGlyLeuLeuGlyTyrGlyValaCysValaAspAlaSerAsnGluAla 266
Db      361 GAGGTGCGCATGTGTGGCTGCTGTGTAGCGGCGCTGCGTGGATGGCTCAATGAAGGCG 420
Qy      267 AspleuLeuIleLeuLeuGlyThrAspPheProTyrSerAspPheLeuProLysAspAsn 286
Db      421 GATCTGCTGATTTCTATTGGGTACGGAATTTCCCTTATTTCTGATTTCTTCTTAAAGACAC 480
Qy      287 ValAlaGlnValaAspIleAsnGlyAlaHisIleGlyArgThrThrValLysThrPro 306
Db      481 GTTCCCAAGGTGGATATCAACGCTGCCGACATTTGCTGACGCTACCAAGGTAAGTATCCG 540
Qy      307 ValThrGlyAspValaAlaAlaThrIleGlnAsnIleLeuProHisValLysGluLysThr 326
Db      541 GTGACCGGTGATGTCTGTCGCAACATCGAAATATTTTGCTCATGTGTAAGAAACAAAACA 600
Qy      327 AspArgSerPheLeuAspArgMetLeuLysAlaHisGluAlaGlyLysLeuSerSerValVal 346
Db      601 GATGCTCTCTCTCTGATCGGATCGCTCAAGGACACGCGCTAAGTGGATCGGTGGTA 660
Qy      347 GluThrTyrThrHisAsnValGluLysHisValProIleHisProGluTyrValAlaSer 366
Db      661 GAGACGTACACACTTAACGTGACAGACATGTGCTTATTCACCTGATACGTTGCTCTCT 720
Qy      367 IleLeuAsnGluLeuAlaAspLysAspAlaValPheThrValaAspThrGlyMetCysAsn 386
Db      721 ATTTTGAACGAGCTGGCGGATTAAGATGCGGTGTTACTGTGATACCGGATGTGCAT 780
Qy      387 ValIlePheHisAlaArgTyrIleGlnAsnProGluGlyThrArgAspPheValGlySerPhe 406
Db      781 GTGGGATGCGAGGTATCATCGAAGATCCGAGGGAACGCGCACTTGTGGTTCATTC 840
Qy      407 ArgHisGlyThrMetAlaAsnAlaLeuProHis 417
Db      841 CGCCACGGCAGATGGCTAATGCTTGCTCAT 873

RESULT 4
US-09-965-825-12
; Sequence 12, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 1422
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-12

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Alignment Scores:
Pred. No.: 1.83 Length: 1422
Score: 48.50 Matches: 22
Percent Similarity: 38.53% Conservative: 20
Best Local Similarity: 20.18% Mismatches: 48
Query Match: 1.62% Indels: 19
DB: 1 Gaps: 4

US-09-965-825-2 (1-579) x US-09-965-825-12 (1-1422)
Qy      424 ValAspArgAsnArg-----GlnValIleAlaMetCysGlyAspGlyLeuGly 440
Db      750 ATTAGCCGACAGCCCTTAACATTCGCCACATTTCCAGATGGCAGCTCAAGCCGGT----- 803
Qy      441 MetLeuLeuGlyGluLeuLeuThrValLysLeuHisGlnLeuProLeuValaValVal 460
Db      804 -----GCCATGAGATTGCCCTGCGCCGATGTG 833
Qy      461 PheAsnAsnSerLeuGlyMetValLysLeuGluMetLeuValGluGlyGlnProGlu 480
Db      834 AAAACGACAAATCATTTGAATGACGACATGCGAGTGCAGCGCGGTGCCGA----- 887
Qy      481 PheGlyThrHisGlnGluGluValaAsnPheAlaGluIleAlaAlaAlaGlyLys 500
Db      888 ---GGATCACTCGCGGACCATTTGGCGAGCGGAAATTTTGGCGGCGGTTTACG 944
Qy      501 SerValArgIleThrAspProLysLysValArgGluGlnLeuAlaGluAlaLeu---Ala 519
Db      945 GACATCTTTATTTGATATTCGCTGTATCTATCAACGATCATGACAGTGAACGCTGAACCG 1004
Qy      520 TyrProGlyProValLeuIleAspIle 528
Db      1005 ATCCCGGAGAAATTTCCATTTGGCGGTG 1031

RESULT 5
US-09-965-825-4/c
; Sequence 4, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERSBACH, Georg
; TITLE OF INVENTION: CORNEFORM BACTERIA
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 3248
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (802) ..(2538)
; OTHER INFORMATION:
US-09-965-825-4

Alignment Scores:
Pred. No.: 16.7 Length: 3248
Score: 46.00 Matches: 111
Percent Similarity: 29.28% Conservative: 67
Best Local Similarity: 18.26% Mismatches: 219
Query Match: 1.54% Indels: 212
DB: 1 Gaps: 27

US-09-965-825-2 (1-579) x US-09-965-825-4 (1-3248)

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QY	23	GIYLeuValGlyAspSerLeuAsnProIleValAspAlaValArgInSerAspIleGlu	42
Db	2720	GGTTGGCAGGGGAATCCCTCGGACACCGGCGTCGAC	2685
QY	43	TrpValHisValArgAsn---GluGluAlaIleAlaPheAlaIleGlyAlaGluSerLeu	61
Db	2684	---CTGCATCTGGCGCAATTTCAATGATTTTGGCGCTTTCACATCGGACGAG---	2634
QY	62	IleThrGlyGluLeuAlaValCysAlaAlaSerCysGlyProGlyAsnThrHisLeuIle	81
Db	2633	---GGCAATCTCATGGGACACCGGCGTGACTCCATCTCGAATAAGTT---	2588
QY	82	GInglyLeuTyrAspSerHisArgAsnGlyAlaValLeuAlaIleAlaSerHisIle	101
Db	2588	---GGCAATCTCATGGGACACCGGCGTGACTCCATCTCGAATAAGTT---	2568
QY	102	ProSerAlaGlnIleGlySerThrPhePheGlnGluThrHisProGluIleLeuPheLys	121
Db	2568	-----	2568
QY	122	GluCysSerGlyTyrCysGluMetValAsnGlyGlyGlnGlyGluArgIleLeuHis	141
Db	2567	-----AATGAAACACGAGGTGATCATATAT	2541
QY	142	HisAlaIleGlnSerTherMetAlaGlyLysGlyValSerValValIleProGlyAsp	161
Db	2540	CAT-----GGAGTAGGAATAATTCCTATG	2517
QY	162	IleAlaLysGluAspAlaGlyAspGlyThrTyrSerAsnSerThrIleSerSerGlyThr	181
Db	2516	-----TTGAAACGGGCGAGA	2502
QY	182	ProValValPheProAspProThrGluAlaIleAlaValLeuValGluAlaIleAsnAspAla	201
Db	2501	TCGATCATCGGCTCCACTCCCTCCACCAAGACGGTGGGCGGCGCTTGCTGAATCC	2442
QY	202	LysSerValThrLeuPhePheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeuGlu	221
Db	2441	ATGACCTGTTCCACAGTATGGTGTGGTAGCGACAGCGATTAGATTCGGT---	2388
QY	222	LeuAlaGluLysIleLysSerProIleGlyHisAlaLeuGlyGlyLysGlnTyrIleGln	241
Db	2387	---ACGATATGCATCATGTAAGTCCAGACGATATGCCAATGCCCTCAGCTAGCTC---	2337
QY	242	HisGluAsnProPhe---GluValAlaLysMetSerGlyLeuLeuGlyTyrGlyAlaCys	259
Db	2336	---TCGGCAACTTCTTCGGATCGGTGATGGGTACCGATTTGATACCCGGCAGCGCGCA	2280
QY	260	ValAspAlaSerAsnGluAlaAspLeuLeuIleLeuGlyThrAspPheProTyrSer	279
Db	2279	ATCTCTGGCAA-----TTCACTTCTCTCA	2256
QY	280	AspPheLeuProLysAspAsnValAlaGlnValAspIleAsnGlyAlaHisIleLysArg	299
Db	2255	TGGTAGTAACAAATTCGTGCTGTCCCTCCACAGACATCTCAACTT---CACATATGCCAA	2197
QY	300	ArgThrThrValLysTyr-----ProValThrGlyAsp---	310
Db	2196	AGAACTGTGTTTAAACACACACAGCCTCAGGGGAAGTTGGTGCAGCTTAACGGTCAGAG	2137
QY	311	-----ValAlaAlaThrIleGluAsnIleLeuProHisValLysGluLys	325
Db	2136	CTCACCCACGACATGCCCAACACCACTCCGCCACACATCGCATACCTCGCGTTTGG	2077
QY	326	ThrAspArgSerPheLeuAspArgMetLeuLysAlaHisGluArgLysLeuSerSerVal	345
Db	2076	ATCAACACTTTGGCGACCAATCGATG---	2026
QY	346	ValGluThrTyrThrHisAsnValAlaGluLys-----	355
Db	2025	GTGGCGGAATGAACCCACAAAGTGGCGGCTTCCCTCCGGATTTCTGATGTACCTCGCATG	1966
QY	356	-----HisValProIleHisProGluTyrValAlaSerIleLeuAsnGluLeu	371

Db 1965 CCACACATTGCACATCCCGGTATCCACAGTAACACCGCATCTTATCCGCCAGCTCGTT 1906
Qy 372 AlaAspLysAspAlaValPheThrValAspThrGlyMet-----Cys 385
Db 1905 CAAAAATGAGGGCAGCACTATTCCAGGGTAATGAGCAGCATGCTTCTCGACGTTATGTGTGA 1846
Qy 386 AsnValThrHisAlaArgTyr-----IleGluAsnPro-----GluGly 398
Db 1845 CGCTTACCGACCGAGACTCACTTACGCTGTGTCGCTTGAAGCATCCGATCAAGAGAGCA 1786
Qy 399 ThrArgAspPheValGlySerPheArgHisGlyThrMet-----AlaAsnAlaLeu 415
Db 1785 ACGATCTGTTTTTTCCTTACATGAGGCAAAAATATTTCGATTGTGGAGCAACTAC 1726
Qy 416 ProHisAlaIle-----GlyAlaGlnSerValAsp----- 425
Db 1725 GGTCAACCGATACCTTCACCGTGTAGCTGACCAATGTGGACCGGTGATATCCACCTG 1666
Qy 426 -----ArgAsnArgGlnVal 430
Db 1665 GGCAACGTTGCTTTTGGAAAGAAATCAGATATAGGAAATCCGTTACCAATAGATACG 1606
Qy 431 ---IleAlaMetCysGlyAspGlyLeuGly----- 440
Db 1605 CAGATCCGCTCATTTGAGCAGCATCCAGCAGGCGCGTTACCAAGCAGGCCAGCATGCC 1546
Qy 441 -----MetLeuLeuGlyGluLeuLeuThrValLysLeuHisGlnLeu-Pr 455
Db 1545 GACCTCAACAGATTCCTCATGTGCGATGTACTGCTTAACCCACCGAC-----CGCATGCC 1492
Qy 455 GLeuysAlaValAlaPheAsnAsnSerSerLeuGlyMetValLysLeuGluMetLeuVal 475
Db 1491 GATCGGTGATTATATCTTCTCGCCAACTCAACACCTGCGCGCA-----GCATTCTT 1438
Qy 475 IeGluGlyGlnProGluPheGlyThrAspHisGluGlnValValAspPheAlaGluIleAlaI 495
Db 1437 CACGCCCGCAGCAGCAACAAAGTGACAGACTTAGCGTTTAAATGCCCTCCACACAGCG 1378
Qy 495 AlaAlaGlyIleLysSerValArgIleThrAspProLysValArgGluGlnLeuAl 515
Db 1377 TCAGGCTCCTAGTAGATCCGGAGACACACACAGGA-----GTGCCAGAGAAATAGT 1327
Qy 515 aGluAlaLeuAlaItyrProGlyProValLeuIleAspIleValThrAspProAlaIle 535
Db 1326 GGAATTGGATTAAGTACCTCACTCGCG-----TCTTCTT 1291
Qy 535 uSerIleProProThrIleThr 542
Db 1290 AGCATATTCACAGAGATCACT 1269

RESULT 6
US-09-965-825-7
; Sequence 7, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
; FILE REFERENCE: 21354USOX
; CURRENT APPLICATION NUMBER: US/09/965, 825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 613
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum

US-09-965-825-7

Alignment Scores:

Pred. No.:	0.786	length:	613
Score:	45.50	Matches:	13
Percent Similarity:	48.72%	Conservative:	6
Best Local Similarity:	33.33%	Mismatches:	19
Query Match:	1.52%	Indels:	1
DB:	1	Gaps:	1

us-09-965-825-2 (1-579) x US-09-965-825-7 (1-613)

QY 491 AlaGUILleAlaAlaAlaGlyIleYseerValArgIleThrasproLysVal 510
 ||||| ||| |||||
 Db 95 GCGGAATTTTGGCGGCGAGTTTACGACATCTTATTGCATATCCGCTATCTA 154
 :::: ||| ::::

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QY      511  ArgGlugInLeuAgluaIaleu---AlaTyPProGlyProValLeuIleAspIle 528
      ::      ::      |||      |||||      ::      |||      ::
Db      155  ACCGATCATGCAGTGCAACGCTTGAAACGCGATCCCGGGAATTCATTTGGCGTg 211

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RESULT 7

```

US-09-965-825-1/c
Sequence 1, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
APPLICANT: THERACH, Georg
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965,825
PRIORITY FILING DATE: 2001-10-01
PRIORITY APPLICATION NUMBER: DE 10048604.5
PRIORITY FILING DATE: 2000-09-30
PRIORITY APPLICATION NUMBER: DE 10117085.8
PRIORITY FILING DATE: 2001-04-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 2160
TYPE: DNA
ORGANISM: Corynebacterium glutamicum
FEATURE:
NAME/KEY: CDS
LOCATION: (327)..(2063)
OTHER INFORMATION:
NAME/KEY: -35 signal
LOCATION: (227)..(232)
OTHER INFORMATION:
NAME/KEY: -10 signal
LOCATION: (256)..(261)
OTHER INFORMATION:
US-09-965-825-1

```

Alignment Scores:	
Pred. No.:	12.3
Score:	45.00
Percent Similarity:	41.8%
Best Local Similarity:	22.45%
Query Match:	1.51%
DB:	1
Length:	2160
Matches:	22
Conservative:	19
Mismatches:	42
Indels:	15
Gaps:	4

us-09-965-825-2 (1-579) x us-09-965-825-1 (1-2160)

[illegible]

Db 1676 CTTAACGGTACAGAGCTCACCACAGCAGATGCCCAACACCAATGCCACACATCGGAT 1617

[illegible]

```

Qy      561 yValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThr 578
          |||:::
Db      1568 CGCATTAGCCATCGTCCGTG-----CGGATGAACCCACA 1532

```

RESULT 8

```

US-09-965-825-3/c
: Sequence 3, Application US/09965825
: GENERAL INFORMATION:
: APPLICANT: DUSCH, Nicole
: APPLICANT: THOMAS, Hermann
: APPLICANT: THIERSBACH, Georg
: TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID
: TITLE OF INVENTION: CORNEFOPM BACTERIA
: FILE REFERENCE: 21354USOX
: CURRENT APPLICATION NUMBER: US/09/965,825
: CURRENT FILING DATE: 2001-10-01
: PRIOR APPLICATION NUMBER: DE 10048604.5
: PRIOR FILING DATE: 2000-09-30
: PRIOR APPLICATION NUMBER: DE 10117085.8
: PRIOR FILING DATE: 2001-04-06
: NUMBER OF SEQ ID NOS: 14
: SOFTWARE: PatentIn version 3.1
: SEQ ID NO 3
: LENGTH: 875
: TYPE: DNA
: ORGANISM: Corynebacterium glutamicum
US-09-965-825-3

```

Alignment Scores:	
Pred. No.:	8.88
Score:	40.50
Percent Similarity:	44.23%
Best Local Similarity:	30.77%
Query Match:	1.36%
DB:	
	Length: 897
	Matches: 40
	Conservative: 16
	Mismatches: 18
	Indels: 11
	Gaps: 2

us-09-965-825-2 (1-579) x US-09-965-825-3 (1-875)

Dy 491 AlacIutlelaalaaAlaaglytyleYsservalArglieThrsProllysVal 510
:::|||||
Db 212 GCCTCCACCAGCGCTCAGTAGATCCGGGAACACCACAGA-----GTG 16Z

QY 511 ArgGlugInIleuAlaGlulAlaIleuAlaTyProGlyProValIleuIleAspIleValThr 530
|||::: ||| ||| |||
Db 161 CCAGAGAGAAATAGTGAATTGGAAATAGTACCGTCACTGCG----- 1200

```
QY 531 AspProAnaIaLeuSerIleProProThrIleThr 544
      :::::||||:| ||| |||||
Db 119 -----TCTTCCTTAGCGATATCACCGAGATCACT 90
```

RESULTS 9
IIS-09-96

Sequence 12, Application US/09965825
GENERAL INFORMATION:
APPLICANT: DUSCH, Nicole
APPLICANT: THOMAS, Hermann
TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
TITLE OF INVENTION: CORYNEFORM BACTERIA
FILE REFERENCE: 21354US0X
CURRENT APPLICATION NUMBER: US/09/965, 825
CURRENT FILING DATE: 2001-10-01
PRIORITY APPLICATION NUMBER: DE 10048604.5
PRIORITY FILING DATE: 2000-09-30
PRIORITY APPLICATION NUMBER: DE 10117085. 8
PRIORITY FILING DATE: 2001-04-06

```
/ NUMBER OF SEQ ID NOS: 14
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 12
/ LENGTH: 1422
/ TYPE: DNA
/ ORGANISM: Corynebacterium glutamicum
US-09-965-825-12

Alignment Scores:
Pred. No.: 18.3 Length: 1422
Score: 40.00 Matches: 16
Percent Similarity: 35.71% Conservative: 4
Best Local Similarity: 28.57% Mismatches: 22
Query Match: 1.34% Indels: 14
DB: 1 Gaps: 3

US-09-965-825-2 (1-579) x US-09-965-825-12 (1-1422)

QY 23 GlyLeuValGlyAspSerLeuAsnProIleValAspAlaValArgInserAspIleGlu 42
DB 905 GGTGGCGAGGTGATCCCTCGGCGACCGGCTGCAC----- 870
QY 43 TrpValHisValArgAsn---GluGluAlaAlaAlaPheAlaIleGluInserLeu 61
DB 869 ---CTGCATCTCGGCAATTCATGATTTTGTGCTTTTCACATGCGGACGAG----- 819
QY 62 IleThrGlyGluLeuAlaValCysAlaAlaSerCysGlyProGlyAsn 77
DB 818 -----GGCATCTCATGGGACCGCGGTGAGCTGCATCTCGAAT 777

RESULT 10
US-09-965-825-7/c
/ Sequence 7, Application US/09965825
/ GENERAL INFORMATION:
/ APPLICANT: DUSCH, Nicole
/ APPLICANT: THOMAS, Hermann
/ TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
/ TITLE OF INVENTION: CORYNEFORM BACTERIA
/ FILE REFERENCE: 21354US0X
/ CURRENT APPLICATION NUMBER: US/09/965,825
/ PRIOR FILING DATE: 2001-10-01
/ PRIOR APPLICATION NUMBER: DE 10048604.5
/ PRIOR FILING DATE: 2000-09-30
/ PRIOR APPLICATION NUMBER: DE 10117085.8
/ NUMBER OF SEQ ID NOS: 14
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 7
/ LENGTH: 613
/ TYPE: DNA
/ ORGANISM: Corynebacterium glutamicum
US-09-965-825-7

Alignment Scores:
Pred. No.: 7.11 Length: 613
Score: 39.00 Matches: 21
Percent Similarity: 34.57% Conservative: 7
Best Local Similarity: 25.93% Mismatches: 25
Query Match: 1.31% Indels: 28
DB: 1 Gaps: 4

US-09-965-825-2 (1-579) x US-09-965-825-7 (1-613)

QY 116 ProGluIleLeuPheGlyGluCysSerGlyTyrCysGluMetValAsnGlyGlyGluIn 135
DB 250 CCGCAACCCCGCGCTGCTGTCATCTACCAATCCAGCCCAATGAAATTTCTCC 191
QY 136 GlyGluArgIle-----LeuHis-----His 142
DB 190 GGGGATCGCTTACGAGCTTGCATGATCGTTTGCATACAGCGGATATGCAATTA 131
QY 143 AlaIleGlnSerThrMetAlaGlyValSerValValIleProGlyAspIle 162

DB 130 GATGTCGTAAACCTGGCGCGCAAAATTTCCGC-----CTC 92
QY 163 AlayGluAspAlaGlyAspGlyThrTyrSerAsnSerThrIleSerGlyThrPro 182
DB 91 GCCAATGCTTCCGCAAGTGAT-----CCCTGGGACCGCGC 56
QY 183 Val 183
DB 55 GTC 53

RESULT 11
US-09-965-825-6
/ Sequence 6, Application US/09965825
/ GENERAL INFORMATION:
/ APPLICANT: DUSCH, Nicole
/ APPLICANT: THOMAS, Hermann
/ TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
/ TITLE OF INVENTION: CORYNEFORM BACTERIA
/ FILE REFERENCE: 21354US0X
/ CURRENT APPLICATION NUMBER: US/09/965,825
/ PRIOR FILING DATE: 2001-10-01
/ PRIOR APPLICATION NUMBER: DE 10048604.5
/ PRIOR FILING DATE: 2000-09-30
/ PRIOR APPLICATION NUMBER: DE 10117085.8
/ NUMBER OF SEQ ID NOS: 14
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO 6
/ LENGTH: 475
/ TYPE: DNA
/ ORGANISM: Corynebacterium glutamicum
US-09-965-825-6

Alignment Scores:
Pred. No.: 7.92 Length: 475
Score: 37.00 Matches: 11
Percent Similarity: 41.86% Conservative: 7
Best Local Similarity: 25.58% Mismatches: 25
Query Match: 1.24% Indels: 0
DB: 1 Gaps: 0

US-09-965-825-2 (1-579) x US-09-965-825-6 (1-475)

QY 217 AlaGlnValLeuGluLeuAlaGlyLysIleLysSerProIleGlyHisAlaLeuGlyGly 236
DB 69 GCTCAAGCCCATGAGACATCCGCGGTGCGCATTTGTACCCCAAGTGGCGGTACC 128
QY 237 LysGlnTyrIleGlnHisGluAsnProPheGluValGlyMetSerGlyLeuLeuGlyTyr 256
DB 129 CAAAGAAGCGCGCATGAGCAGGAGATATGCTTATGATCCCAACGCTTGGTTTC 188
QY 257 GlyAlaCys 259
DB 189 GGTGGCTGC 197

RESULT 12
US-09-965-825-13
/ Sequence 13, Application US/09965825
/ GENERAL INFORMATION:
/ APPLICANT: DUSCH, Nicole
/ APPLICANT: THOMAS, Hermann
/ TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
/ TITLE OF INVENTION: CORYNEFORM BACTERIA
/ FILE REFERENCE: 21354US0X
/ CURRENT APPLICATION NUMBER: US/09/965,825
/ PRIOR FILING DATE: 2001-10-01
/ PRIOR APPLICATION NUMBER: DE 10048604.5
/ PRIOR FILING DATE: 2000-09-30
/ PRIOR APPLICATION NUMBER: DE 10117085.8
/ PRIOR FILING DATE: 2001-04-06
```

```

; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-13
```

```

Alignment Scores:
Pred. No.: 0.0123 Length: 20
Score: 35.00 Matches: 6
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 1.17% Indels: 0
DB: 1 Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-13 (1-20)

```

QY 127 CysgluMetValangly 132
DB 1 TGCAGATGATGATGAT 18
```

```

RESULT 13
US-09-965-825-14/c
; Sequence 14, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 14
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-14
```

```

Alignment Scores:
Pred. No.: 0.0256 Length: 20
Score: 33.00 Matches: 6
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 1.11% Indels: 0
DB: 1 Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-14 (1-20)

```

QY 412 AlaAsnAlaLeuProHis 417
DB 20 GCTAATGCGTTCCTCAT 3
```

```

RESULT 14
US-09-965-825-6/c
; Sequence 6, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; TITLE OF INVENTION: CORINEFORM BACTERIA
```

```

; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 475
; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-6
```

```

Alignment Scores:
Pred. No.: 19.9 Length: 475
Score: 32.00 Matches: 11
Percent Similarity: 51.85% Conservative: 3
Best Local Similarity: 40.74% Mismatches: 9
Query Match: 1.07% Indels: 4
DB: 1 Gaps: 2
```

us-09-965-825-2 (1-579) x US-09-965-825-6 (1-475)

```

QY 234 LeuGlyGlyysGlnTyrIleGlnHisGluAsnProPheGluValGlyMetSer----- 251
DB 116 TTGGGTGACAAA-----ATCGGCCACCGCGGATGTTCTCATGGCTTGAGCATTTTC 63
```

```

QY 252 GlyLeuGluGlyTyrGlyAla 258
DB 62 GGAATCGCTTCACTTGATGCT 42
```

```

RESULT 15
US-09-965-825-9/c
; Sequence 9, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
; LENGTH: 48
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic DNA
US-09-965-825-9
```

```

Alignment Scores:
Pred. No.: 4.76 Length: 48
Score: 24.00 Matches: 4
Percent Similarity: 100.00% Conservative: 1
Best Local Similarity: 80.00% Mismatches: 0
Query Match: 0.80% Indels: 0
DB: 1 Gaps: 0
```

us-09-965-825-2 (1-579) x US-09-965-825-9 (1-48)

```

QY 351 HisAsnValGluLys 355
DB 46 CATAACGTTGAGAG 32
```

Search completed: November 25, 2003, 06:26:52
Job time : 13 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM nucleic - protein search, using frame_plus_n2p model

Run on: November 25, 2003, 06:28:39 ; Search time 1 Seconds
(without alignments)
5.003 Million cell updates/sec

Title: us-09-965-825-1
Perfect score: 3948
Sequence: 1 tttagggcgcatctctgtgag.....gttgcaccatgagatgcctcct 2160

Scoring table: BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 2 seqs, 1158 residues

Total number of hits satisfying chosen parameters: 4

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:
-MODDEL=frame_n2p.model -DEV=soft -Q=us-09-965-825-1 -DB=US09965825.pep
-SUFFIX=po -OUT=align1_pep -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits
-START=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200
-THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=plo
-NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000 -NCPU=6 -NO XIPXY
-NEG SCORES=0 -LONGLOG -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : US09965825.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES				
Result No.	Score	Query Match	Length DB	ID
1	2985	75.6	579	1 US-09-965-825-2
2	2985	75.6	579	1 US-09-965-825-5
3	45	1.1	579	1 US-09-965-825-2
4	45	1.1	579	1 US-09-965-825-5

ALIGNMENTS

RESULT 1
US-09-965-825-2
; Sequence 2, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENIC ACID U
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5

; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-2

Alignment Scores:
Pred. No.: 0
Score: 2985.00
Percent Similarity: 100.00%
Best Local Similarity: 100.00%
Query Match: 75.61%
DB: 1
Length: 579
Matches: 579
Conservative: 0
Mismatch: 0
Indels: 0
Gaps: 0

us-09-965-825-1 (1-2160) x US-09-965-825-2 (1-579)

QY	327	ATGCAACAGCTACGAGCAATTAATTGACACTTGAAGCTCAAGCTGACAGCA	386
DB	1	MetAlaHisSerTyrAlaGluGlnLeuLleAspThrLeuGlnAlaGlnGlyValLysArg	20
QY	387	ATTATGATTGGTGGGTGACAGCCTTAATCCGATCGTGCCTGCTCCCAATCAGAT	446
DB	21	LleTyrGlyLeuValGlyAspSerLeuAsnProLleValAspIleValArgGlnSerAsp	40
QY	447	ATTGATGGGTGACGTTGAAATGAGAAAGCCGCCGCTTTGACAGCCGCTGCCGAATCG	506
DB	41	LleGluTrpValHisValArgAsnGlnGlnAlaAlaIleValLeuAlaIleAsnHis	60
QY	507	TTGATCAGTGGGAGCTGGAGATGATGCTGCTTTGGTGGTCTGGAACACACACCTG	566
DB	61	LleIleThrGlyGlnLeuValAlaCysAlaAlaSerCysGlyProGlyAsnThrHisLeu	80
QY	567	ATTGAGGCTTTTATGATTCGATCGCAATGCTGCAAGGCTGTGGCCATCGTACCAT	626
DB	81	LleGlnGlyLeuTyrAspSerHisArgAsnGlyAlaIleValLeuAlaIleAsnHis	100
QY	627	ATTCCGAGTCCCAAGTTGGTTCGACGTTCTTCACGAAACGATCCGAGATTTGTT	686
DB	101	LleProSerAlaGlnLleGlySerThrPhePheGlnGluThrHisProGlnLleLeuPhe	120
QY	687	AAGGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	746
DB	121	LysGluCysSerGlyTyrCysGlnMetValAsnGlyGlyGlnGlnGlyGlnGlyLeu	140
QY	747	CATCAGCGGATTCAGTCCACATGCGGCGGTAAAGTGTGCTGCTGCTGCTGCTGCTGCT	806
DB	141	HisHisAlaIleGlnSerThrMetAlaGlyLysGlyValSerValValAlaIleProGly	160
QY	807	GATATCGCTAAGGAAGACCCAGGTGACGTTATTCATTCATTCATTCATTCATTCATTC	866
DB	161	AspIleAlaLysGluAspAlaGlyAspGlyThrTyrSerAsnSerThrLleSerSerGly	180
QY	867	ACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	926
DB	181	ThrProValAlaPheProAspProThrGlnAlaAlaAlaAlaValGlnAlaIleAsnAsn	200
QY	927	GCTAAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	986
DB	201	AlaLysSerValThrLeuPheCysGlyAlaGlyValLysAsnAlaArgAlaGlnValLeu	220
QY	987	GAGTGGCGGGAATTAATTAATCAGGATCGGCGATGCGCTGGTGGTGAACAGTACATC	1046
DB	221	GlnLeuAlaGlnLysLysSerProLleGlyHisAlaLeuGlyGlyLysGlnTyrIle	240
QY	1047	CAGCATGGAATCCCTTTGAGGTCGACATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	1106
DB	241	GlnHisGlnAsnProPheGluValGlyMetSerGlyLeuLeuGlyTyrIleValCysVal	260

```
QY 1107 GATCGTCATATGAGCGGATCTGTGATTCTATTGGGATCGAATTTCCCTATTCTGAT 1166
DB 261 Aspa1aserAsnGua1aAspLeu1leu1eu1g1Thra1spPhePro1y1Ser1asp 280
QY 1167 TTCCTTCTTAAGACAAAGTTGCCAGGTGATATCAACGGTGGCCATTTGGTCAAGT 1226
DB 281 Phe1eu1Pro1y1Sap1a1sn1Val1Ala1Gln1Val1Asp1le1sn1G1y1Ala1H1s1le1G1y1Arg1 300
QY 1227 ACCAGCGTGAAGTATCCGGTACCGGTGATGTTCTGTGCAACATCGAATAATATTTCCT 1286
DB 301 Thr1Thr1Val1y1s1y1r1Pro1Val1Thr1G1y1Asp1Val1Ala1Ala1Thr1le1G1u1Asn1le1leu1Pro 320
QY 1287 CATGTGAAGAAAAAANAGATCGTTCTCTTCTTATGTGGATGCTCAAGGCACACAGCGT 1346
DB 321 His1Val1y1s1G1u1y1s1Thra1sp1Arg1Ser1Phe1eu1Asp1Arg1Met1leu1y1SAla1H1s1G1u1Arg 340
QY 1347 AAGTTGAGCTCGGAGTGAAGACGATACACATACGTCGAGACGATGTCGCTTATTCAC 1406
DB 341 Lys1eu1Ser1Ser1Val1G1u1Thr1Thr1His1sn1Val1G1u1y1S1H1s1Val1Pro1le1His 360
QY 1407 CCTGAATACGTTGCTCTATTTTGAACGAGCTGGCGGATAAGATGGCGGTGTTACTGTG 1466
DB 361 Pro1G1u1r1y1r1Val1Ala1Ser1le1leu1Asn1G1u1eu1Ala1s1p1y1Sap1Ala1Val1Phe1Thr1Val 380
QY 1467 GATACCGGCAATGTCGCAATGTCGTCATCGAGATCCAGATCCCGAGGGAACCGGC 1526
DB 381 Asp1H1s1G1y1Met1Cy1s1Asn1Val1Thp1SAla1Arg1y1r1le1G1u1Asn1Pro1G1u1G1y1Thra1Arg 400
QY 1527 GACTTTGTGGGTTTCATTCGCCCAACGAGCAGATGAGTATGAGTGGCTTCATCGCATTTGT 1586
DB 401 Asp1Phe1Ala1G1y1Ser1Phe1Ala1G1H1s1G1y1Thr1Met1Ala1sn1Ala1eu1Pro1H1s1Ala1le1G1y 420
QY 1587 GCGCAAAAGTGTATGCAAAACCGCAGGTGATCGCATGTGTGGCGATGGTGTGTTGGC 1646
DB 421 Ala1G1n1Ser1Val1Asp1Arg1Asn1Arg1Gln1Val1le1Ala1Met1Cy1s1G1y1Asp1G1y1G1e1u1G1y 440
QY 1647 ATGTGTGTGGTGAAGCTTTCGACCGCTTAAGCTGACCACTTCGCTGAAAGCGCTGTGTC 1706
DB 441 Met1eu1eu1G1y1G1u1eu1eu1Thr1Val1Lys1eu1H1s1G1ln1eu1Pro1leu1y1SAla1Val1Val 460
QY 1707 TTTAACACAGATTCTTTGGGATGAGTGAAGTGGAGATGTCGTCGAGGAGGACGCGCA 1766
DB 461 Phe1Asn1Asn1Ser1Ser1eu1G1y1Met1Val1Lys1eu1G1u1Met1eu1Val1G1u1G1y1Gln1Pro1Gln 480
QY 1767 TTTGGTACTACCATGGAAGATGTAATTTGCAGAGATTCGGCGGCTGCGGATATCAA 1826
DB 481 Phe1G1y1Thra1sp1H1s1G1u1Gln1Val1Asn1Phe1Ala1Gln1le1Ala1Ala1Ala1G1y1le1Lys 500
QY 1827 TCCGTACGATCAACCGATCCGAAGAAAGTTCCGAGAGAGTACGTGAGGATTCGATAT 1886
DB 501 Ser1Val1Arg1le1Thra1sp1Pro1y1S1y1S1Val1Arg1Gln1eu1Ala1G1u1Ala1eu1Ala1Ty1r 520
QY 1887 CCTGACCTTACTGATGATATGATCGTCACGATCCTAATCGCTGTCGATCCACCAAC 1946
DB 521 Pro1G1y1Pro1Val1leu1le1Asp1le1Val1Thr1Asp1Pro1sn1Ala1eu1Ser1le1Pro1Pro1Th1r 540
QY 1947 ATACGCGGGAACAGTCAATGAGGATTCAGCAAGCGCGCCACCGGAACCGTCTTTGTGGA 2006
DB 541 Ile1Th1r1Pro1Gln1Gln1Val1Met1G1y1Phe1Ser1y1SAla1Ala1Thra1Arg1Thr1Val1Phe1G1y1G1y 560
QY 2007 GGAGTGAAGAGCATGATCGATCGCGCGCTTCGAACATAGAAATNTCTACTCCA 2063
DB 561 Gly1Val1G1y1Ala1Met1le1Asp1leu1Ala1Arg1Ser1Asn1le1Arg1Asn1le1Pro1Th1rPro 579

RESULT 2
US-09-965-825-5
; Sequence 5, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID U
; TITLE OF INVENTION: CORYNEFORM BACTERIA
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FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965, 825
; CURRENT FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; PRIOR FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-5

Alignment Scores:
Pred. No.: 0 Length: 579
Score: 2985.00 Matches: 579
Percent Similarity: 100.00% Conservative: 0
Best Local Similarity: 100.00% Mismatches: 0
Query Match: 75.61% Indels: 0
DB: 1 Gaps: 0

us-09-965-825-1 (1-2160) x US-09-965-825-5 (1-579)
QY 327 ATGCACACAGCTACGCGAACAATTATATGACATTTGGAAGCTCAAGGTGGAAGCA 386
DB 1 Met1Ala1H1s1Ser1y1r1Ala1Gln1Gln1eu1le1Asp1Thr1eu1Gln1Ala1Gln1G1y1Val1Lys1Arg 20
QY 387 ATTATAGTTTGTGTGGTGAACACCTTATATCCATCGATCGTATGCTGTCCGCAATCAGAT 446
DB 21 Ile1Ty1G1y1eu1Val1G1y1Asp1Ser1Leu1Asn1Pro1le1Val1Sap1Ala1Val1Arg1Gln1Ser1asp 40
QY 447 ATTAGAGGTGTGACGTTCCAAATAGAGAAACGCGCGCTTTGACACCGCGTGGCGGAATCG 506
DB 41 Ile1Gln1Ty1P1a1H1s1Val1Arg1Asn1Gln1Gln1Ala1Ala1Phe1Ala1Ala1G1y1Ala1Gln1Ser 60
QY 507 TTGATCACTGGGAGGTCGCGATGATGTCGCTTCTTGTGTGTCCTCGAACAACACACCTG 566
DB 61 Leu1le1Th1r1G1y1eu1eu1Ala1Val1Cys1Ala1H1s1Ser1Cy1s1G1y1Ser1Pro1G1y1Asn1Th1H1s1eu 80
QY 567 ATTCAGGGCTTTATGATTCGATCGAATGATGTCGGAAGTGTGGCCATCGCTAGCCAT 626
DB 81 Ile1Gln1G1y1eu1Ty1r1Asp1Ser1H1s1Arg1Asn1G1y1Ala1y1SAla1eu1Ala1le1Ala1Ser1H1s 100
QY 627 ATTCGAGTCCCAAGATTGGTTCGATGCTTTCACAGAAACGATCCGGAGATTTGTCTT 686
DB 101 Ile1Pro1Ser1Ala1Gln1le1G1y1Ser1Th1r1Phe1Gln1Gln1Th1rH1s1Pro1Gln1le1leu1Phe 120
QY 687 AAGGAATGCTCTGTACTGTCGAGATCGTGAATGTGTGTGAGCAGAGGCTGAACGATTTTG 746
DB 121 Lys1Gln1Cy1s1Ser1G1y1r1Cy1s1Gln1Met1Val1Asn1G1y1Gln1Gln1G1y1Gln1G1y1leu 140
QY 747 CATCAAGCGGATTAAGTCACCATAGCGGGTAAAGGTGTGTCGGTGTGATGATTCCTGGT 806
DB 141 His1le1Ala1le1Gln1Ser1Thr1Met1Ala1G1y1G1y1Val1Ser1Val1Val1le1Pro1G1y 160
QY 807 GATATCGCTTAAGGAAGACGAGGTAAGGTAACCTTATTCGAATCCACTATTTCTTCGCGC 866
DB 161 Asp1le1Ala1Ala1y1S1Gln1Sap1Ala1G1y1Asp1G1y1Th1r1y1Ser1sn1Ser1Th1r1le1Ser1Ser1G1y 180
QY 867 ACTCTGTGTGTTCCTCCGATCCTACTGAGGCTGACGCGTGTGAGAGCGATTAACAC 926
DB 181 Thr1Pro1Val1Ala1Phe1Pro1Asp1Pro1Th1rGln1Ala1Ala1leu1Val1Gln1Ala1le1Asn1 200
QY 927 GCTAACTCTGTCACTTTGTTCTTCGGGTGGCGGTGAAGAATCTCGCGGCAAGGTGTG 986
DB 201 Ala1y1Ser1Val1Th1r1eu1Phe1Cy1s1G1y1Ala1G1y1Val1Lys1sn1Ala1Arg1Ala1Gln1Val1eu 220
QY 987 GAGTTGGCGGAAGATTAATCAACGATCGGCGCATGCGGCTGGGTGAAGCATCATC 1046
DB 221 Gln1eu1Ala1Gln1Lys1le1Lys1Ser1Pro1le1G1y1H1s1Ala1eu1G1y1Lys1Gln1Ty1le 240
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Alignment Scores:
Pred. No.: 0
Score: 45.00
Percent Similarity: 41.84%
Best Local Similarity: 22.45%
Query Match: 1.13%
DB: 1
Length: 579
Matches: 22
Conservative: 19
Mismatch: 42
Indels: 15
Gaps: 4

us-09-965-825-1 (1-2160) x US-09-965-825-5 (1-579)

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QY 1796 GAATTCACCTTCATGTCAGTACCAATTCCTGGCTGCTCCACAGACATCTCCA 1737
    |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 487 GluValasnPheAlaGluIleAlaAlaAla-AlaGlyIleIysSerValArgIleThrAs 506

QY 1736 CTCACCATGCCCAAGAACTGTGTTAAACCCACACAGCCTTCAGCGAAGTGTGCAG 1677
    :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 506 pProlyIysValArgGluGlnIleuAlaGluAlaIleuAlaIleProGlyPro---ValLe 525

QY 1676 CTTAAGGTCGAAGCTCACCAGCAGCATGCCCAACACCATCGCCACACATCGCGAT 1617
    :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 525 uIleAspIleValThrAspProAsnAlaIleuSerIleProProthr-----Il 541

QY 1616 CACCTGGCGG-----TTTCGATCAACACTTGGCCACCAATCGCATGAGGCA 1569
    |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 541 eThrTrpGluGlnValMetGlyPheSerIysAlaAlaIleThrArgThrValIleGlyGlyG1 561

QY 1568 CGCATTAAGCCATCGTGCCTG-----CGGATGAACCCACA 1532
    |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 561 yValGlyAlaMetIleAspLeuAlaArgSerAsnIleArgAsnIleProThr 578
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Search completed: November 25, 2003, 06:28:46
Job time : 5 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 25, 2003, 06:22:56 ; Search time 0.001 Seconds
(without alignments)
670,482 Million cell updates/sec

Title: us-09-965-825-2
Perfect score: 2985
Sequence: 1 MAHSAEQLIDTLEAGVKR.....GGVGMIDLARSNIRNIPTP 579

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2 seqs, 1158 residues

Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : US09965825.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES				
Result No.	Score	Match	Length	ID Description
1	2985	100.0	579	1 US-09-965-825-2 Sequence 2, Appl1
2	2985	100.0	579	1 US-09-965-825-5 Sequence 5, Appl1

ALIGNMENTS

RESULT 1
US-09-965-825-2
; Sequence 2, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-2

Query Match 100.0%; Score 2985; DB 1; Length 579;
Best Local Similarity 100.0%; Pred. No. 0;

Matches 579; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MAHSAEQLIDTLEAGVKRIYGLVSDSLNPIDAVQSDIEWHVNEEAAFAAGAES	60
DB	1	MAHSAEQLIDTLEAGVKRIYGLVSDSLNPIDAVQSDIEWHVNEEAAFAAGAES	60
QY	61	LITGELAVCAACGPGNTHLIQGLYDSHRGAKYLASHIPSAQISTFPOETHPEILF	120
DB	61	LITGELAVCAACGPGNTHLIQGLYDSHRGAKYLASHIPSAQISTFPOETHPEILF	120
QY	121	KECSGYCEMNGEBOGERLIHHAIOSTMACKGVSVVPIPGDIAKEDGDTYSSTISSG	180
DB	121	KECSGYCEMNGEBOGERLIHHAIOSTMACKGVSVVPIPGDIAKEDGDTYSSTISSG	180
QY	181	TPVVPDPTBAALVBAINNKSVTLPFGAGVKNARQVLEAKISPIGHALGKQYI	240
DB	181	TPVVPDPTBAALVBAINNKSVTLPFGAGVKNARQVLEAKISPIGHALGKQYI	240
QY	241	QHNPPEVGMISGLIGACVDAENADLLILGTDPFYSDFLPKDNVAQVDINGAHIGRR	300
DB	241	QHNPPEVGMISGLIGACVDAENADLLILGTDPFYSDFLPKDNVAQVDINGAHIGRR	300
QY	301	TTVKYPTGPDVAATIENTILPHVKEKTDPSFLDMLKAHERKLSVETTYHNVEKHVPIH	360
DB	301	TTVKYPTGPDVAATIENTILPHVKEKTDPSFLDMLKAHERKLSVETTYHNVEKHVPIH	360
QY	361	PEYVASILNELADKDAVFTVDTGMCNVWHARYIENEGTRDFVGSFRHGTMANALPHAIG	420
DB	361	PEYVASILNELADKDAVFTVDTGMCNVWHARYIENEGTRDFVGSFRHGTMANALPHAIG	420
QY	421	AGSVDRNRQVIAMCGSGGMLIGELLTYKHLPLKAVFPNNSSLCMKLEMLVEGQPE	480
DB	421	AGSVDRNRQVIAMCGSGGMLIGELLTYKHLPLKAVFPNNSSLCMKLEMLVEGQPE	480
QY	481	FGTDHEENVPAETAAAGIKSVRIITDPKVRBQLABALPQVLIDIVDPNLSIPT	540
DB	481	FGTDHEENVPAETAAAGIKSVRIITDPKVRBQLABALPQVLIDIVDPNLSIPT	540
QY	541	ITWEQVMGFSKATRTVFGGVGAMIDLARSNIRNIPTP	579
DB	541	ITWEQVMGFSKATRTVFGGVGAMIDLARSNIRNIPTP	579

RESULT 2
US-09-965-825-5
; Sequence 5, Application US/09965825
; GENERAL INFORMATION:
; APPLICANT: DUSCH, Nicole
; APPLICANT: THOMAS, Hermann
; APPLICANT: THIERBACH, Georg
; TITLE OF INVENTION: PROCESS FOR THE FERMENTATIVE PREPARATION OF D-PANTOTHENOIC ACID
; FILE REFERENCE: 21354US0X
; CURRENT APPLICATION NUMBER: US/09/965,825
; PRIOR FILING DATE: 2001-10-01
; PRIOR APPLICATION NUMBER: DE 10048604.5
; PRIOR FILING DATE: 2000-09-30
; PRIOR APPLICATION NUMBER: DE 10117085.8
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-965-825-5

Query Match 100.0%; Score 2985; DB 1; Length 579;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 579; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MAHSAEQLIDTLEAGVKRIYGLVSDSLNPIDAVQSDIEWHVNEEAAFAAGAES 60
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Db      1 MAHSYARQLIDTLEAQGVKRIYGLVGSNDPIVDVAFQSDIEMVHVRNEEAAAFAGAES 60
QY      61 LITGELAVCAASCGPENTHLIQGLYDSHRNGAKVLAIASHIPSAQIGSTFFQETHPEILF 120
Db      61 LITGELAVCAASCGPENTHLIQGLYDSHRNGAKVLAIASHIPSAQIGSTFFQETHPEILF 120
QY      121 KECGSGYCEMNGSGEQGERILHHAIQSTWAGKGSVVVI PGDI AKEDAGDGTYSNSTISSG 180
Db      121 KECGSGYCEMNGSGEQGERILHHAIQSTWAGKGSVVVI PGDI AKEDAGDGTYSNSTISSG 180
QY      181 TPVAFPPPTFAAALVEAINNNAKSVTLFCGAGVKARAOVLELAEKISPIGHALGKQYI 240
Db      181 TPVAFPPPTFAAALVEAINNNAKSVTLFCGAGVKARAOVLELAEKISPIGHALGKQYI 240
QY      241 QHENPFEVMSGLIGYACVDASNEADLLILGTFPYSDFLPKDNVAQVDINGAHIGRR 300
Db      241 QHENPFEVMSGLIGYACVDASNEADLLILGTFPYSDFLPKDNVAQVDINGAHIGRR 300
QY      301 TTVKYPVTGVAATIENILPHVKEKTRSFIDRMKKAHERKLSVVEITYHNVEKHVPIH 360
Db      301 TTVKYPVTGVAATIENILPHVKEKTRSFIDRMKKAHERKLSVVEITYHNVEKHVPIH 360
QY      361 PEYVASILNELADKDAVFTVDTGMCNVMHARIENPEGTRDPVGSFRHGTMANALPHAIG 420
Db      361 PEYVASILNELADKDAVFTVDTGMCNVMHARIENPEGTRDPVGSFRHGTMANALPHAIG 420
QY      421 AQSVDNRROYIAMCGDGLGMLIGELLTVKLHQLPLKAVVFNNSSLGMVKLEMLVEGOPE 480
Db      421 AQSVDNRROYIAMCGDGLGMLIGELLTVKLHQLPLKAVVFNNSSLGMVKLEMLVEGOPE 480
QY      481 FGTDHHEVNFAELTAAAGISVRLTDPKRYAEQLAELAYPGVLIIDIVDPNALSTIPT 540
Db      481 FGTDHHEVNFAELTAAAGISVRLTDPKRYAEQLAELAYPGVLIIDIVDPNALSTIPT 540
QY      541 ITWEQVMGFSKAATRTVFGGSGVGMIDLARSNIRNIPTP 579
Db      541 ITWEQVMGFSKAATRTVFGGSGVGMIDLARSNIRNIPTP 579
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Search completed: November 25, 2003, 06:22:56
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